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ABSTRACT

Recognizing the paraprofessional as a valued asset for the accomplishment of routine library services and techniques while freeing the professional librarian for those duties truly requiring a professional education, this paper presents academic library administrators with an inservice training handbook to prepare and improve the skills of library technicians. The first of four parts presents the basic philosophy of paraprofessional utilization, emphasizing reference service and the increasing importance of automated processes in the library. The second examines the particulars of reference service, and discusses supervisory and personnel administrative functions while highlighting the importance of stress prevention. Job orientation, inservice training techniques, learning models, and guidelines for planning and presenting instruction in part three provide administrators and professional librarians with resource tools to develop a viable training program for the paraprofessional. The final part presents operational techniques for decision making, reference service, research strategy, patron interviewing, the use of learning activity packages, and evaluations for on-the-job improvement of paraprofessional skills. An appendix presents a study on the effect of repetition on learning and retention of library knowledge. In addition to a subject divided bibliography of over 140 titles, each part and the appendix list references applicable to the topic considered. (RAA)

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INTRODUCTION

THE CASE FOR USING PARAPROFESSIONALS

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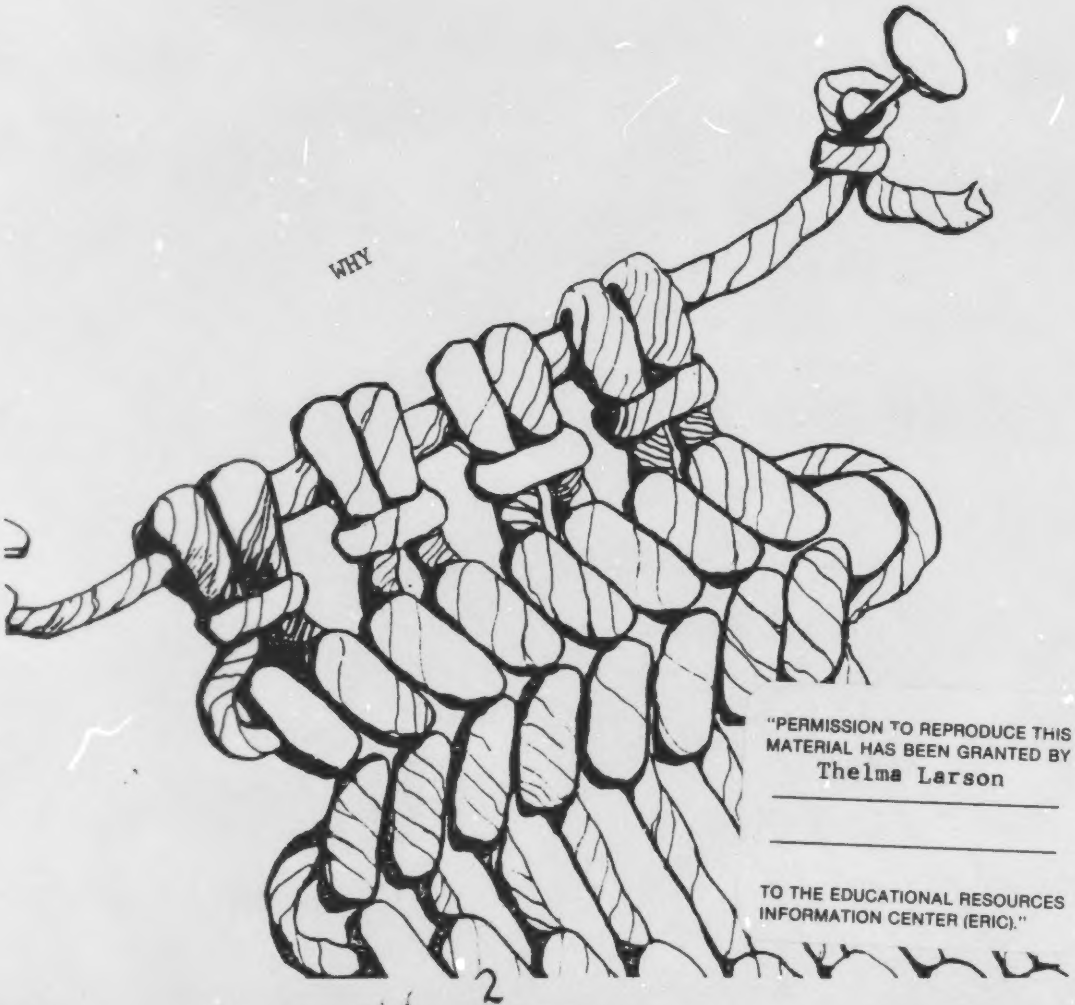

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INTRODUCTION

THE CASE FOR USING PARAPROFESSIONALS

ECONOMIC ASPECTS

Libraries today are faced with inflation and rising costs, while at the same time trying to maintain current levels of public services or even to provide additional services. In some libraries this means better utilization of paraprofessional support staff in view of declining school enrolments, automation, tighter budgets.

DEFINING THE PARAPROFESSIONAL

Coming at an opportune time, the ALA (American Library Association) has prepared a statement of definitions of the sub professional class of library employees with statements of typical duties. Movement up the career ladder for nonprofessionals would not permit crossover to professional positions unless the individual met the qualifications standards for professional librarian. The report stresses that the paraprofessional is not clerical and not professional.

This recognized middle group of employees between the professional and clerical level can relieve the professional staff from performing routines, techniques, and procedures not requiring full professional knowledge. The non-professional duties and responsibilities involve the application of a variety of procedures and processes based on predetermined guidelines and precedents. They do not include the application of full professional knowledge. Skills and knowledge are gained through on the job experience or through specialized training courses for the non-professional.

In view of the present period of inflation it is essential to assign the limited number of professional librarians only to duties that require full professional education.

SCOPE OF DUTIES FOR PARAPROFESSIONAL

The report lists the performance of the paraprofessional duties to be of a limited scope such as:

Knowledge of a circulation system
Ability to perform simple cataloguing and classification
Cataloguing and Classification

To transcribe material into correct bibliographic form

To use book lists

To apply clearly established methods, skills and procedures to the needs of the library.

These are all under the supervision of the librarian.

ACADEMIC LIBRARY

STAFF

The academic library is administered and staffed by professional librarians, assisted by support staff who have a broad, general education, with specialities in the subject fields. They have an understanding of the educational philosophy and teaching method used in the institution and work closely with the faculty. They keep up with new trends, curriculum development, methods of teaching, new materials and new sources of materials.

PROGRAM

The program of the university library ranges from the needs of the freshman student to those of the doctoral candidate engaged in scholarly research and the research of professors.

In order that all students will have an equal opportunity to use the library materials, certain rules and regulations are established. These rules govern the kinds of materials which are circulated, the length of time they can be borrowed, the fines charged for overdue books, the use of the facilities and materials.

TYPE OF MATERIALS

The quantity and diversity of library materials will vary according to the size, purpose, and the program, but in a typical college of education library the following will be included:

1. Reference books of a general nature and reference books in the subject fields.

These reference books include dictionaries, encyclopedias, indexes, yearbooks, handbooks, atlases, gazetteers, bibliographies and some reference histories like Cambridge History of American Literature.

2. A collection of:
   a. Books which relate to and supplement each curriculum offered
   b. Important general books not relating to a specific subject area, and important books in subject fields not included in the curriculum

3. Periodicals and newspapers--Current issues, bound volumes and those on microfilm and microfiche

4. Pamphlets and clippings

5. Audiovisual materials which include pictures, films, slides, filmstrips, phonograph records, cassettes, tape recordings, maps, globes, video-tapes and other visual aids.

6. Microfilm, microfiche and other microforms

7. Government publications

8. Programmed materials

9. Archival materials pertaining to the institution

10. Equipment for the use of these materials

GUIDELINES FOR BIBLIOGRAPHIC INSTRUCTION IN ACADEMIC LIBRARIES AS SUGGESTED BY ASSOCIATION OF COLLEGE AND RESEARCH LIBRARIES BIBLIOGRAPHIC INSTRUCTION TASK FORCE

To meet ACRL recognized standards of library service certain specific characterization should be included in the program. These should be related to the information needs of the clients specified in written statement of identificable objectives by the reference dept.

The task force believes that the primary role of bibliographic instruction is to provide students with the necessary skills to complete their assignments. But in addition it should also prepare them to be able to make effective use of the library after university.

The student should be able to choose, use, and evaluate materials appropriate to his needs as well as the quality.

Some questions that might help in determining the objectives are:

1. What objectives are suitable for library instructions?
2. What are the most important objectives to achieve-same for all?
3. What criteria can be used for evaluating the effectiveness of the library instruction program?
4. What factors play an important role in implementing the program of the library-timing, design of the program, involvement of the faculty?
5. Can effective library instruction improve academic performance, change library use patterns of the students, improve ability to use the resources of the library more effectively?
6. How can library instruction and impact be evaluated by number of students reached, by number of classes taught?

There is little published research to help librarians to determine the needs of the institutions, to choose the most effective library instruction in satisfying these needs, or even how to evaluate the effectiveness of the library's program for instructing its cliental in library use.

There are however, extensive published research on the advantages of one media over another and the characteristics that are necessary to become an effective teacher.

FUNCTION OF THE EDUCATION LIBRARY

The library in the College of Education should:

1. Provide:
   a. Adequate material for students and faculty for all courses being offered in the college of education
   b. A model school library, a textbook collection, recreational reading, periodicals, audiovisual materials and teaching aids that support the school curriculum
   c. Materials for personal development and research
   d. An environment conducive to study and research

2. Teach students to use the library effectively as a source of materials for:
   a. Supporting courses offered
   b. Suggestions for effective teaching
   c. Subject matter for practice teaching in the elementary and high school

3. Prepare the student teachers to teach their pupils how to use the library.

4. Demonstrate to the prospective teachers the value of the model school library.

5. Provide service promptly and courteously.

Access to information is important as well as the availability of resources.

INSTRUCTION

The reference department's program for training paraprofessionals is a dynamic one based on the changing instructional needs of students. There are three primary goals for user education:

1. To plan library instruction for all undergraduate and graduate students. Library skills must not be taught in isolation but must be taught when needed. A particular skill is introduced with an assignment from the professor.

2. A second goal is to develop curricular materials to support this bibliographic instruction program. One aspect will be governed by what the student already knows-hence the use of pre and post tests.

3. A third goal is to develop or adapt a library skills test and develop alternate versions. The literature on this subject has been explored and some test samples have been obtained from several libraries, as well as comprehensive Test of Basic Skills, reference skills section, published by CTB/McGraw-Hill. At present no test has been standardized. Perkins has published his research on Peabody Library Information Test and Feagley Library Orientation Test for Freshman. Results were discouraging. A paper-pencil test of basic library skills is being used for establishing a baseline of library skills in the student population. However, the assessment of materials created for the program and evaluation of instruction presentation is a long term process. Continued evaluation of materials and instruction is under way with the cooperation of the faculty. See the appendix for the result of the Listening Test.

THE REFERENCE DEPARTMENT

DEFINITION OF REFERENCE SERVICE

1. Reference services must be inclusive of all kinds of media. Programmed learning materials, filmstrips, records, slides, film loops, pictures, games, posters, kits and other media rank along side books and other printed materials as sources of information and resources for the education student. Tools used for reference cannot be limited to reference books or even to printed materials. Reference service must involve the interpretation and utilization of all media and may even involve the creation of special materials to meet student needs.

2. Reference services must be individualized so that every student or faculty member can feel that his individual needs have been satisfied. This requires that the reference person be willing to listen, to take time to provide individual instruction and to recognize unexperessed problems. The reference person must become involved in the instructional process.

3. Reference service must be supportive of the classroom instruction. The Education Library must make its services a continuation of the instructional goals. To provide an answer to a student whose instructor wants the student to learn how to find the answer is not supporting the intention of the professor. However, the faculty member locating appropriate materials and suggesting new materials can be supportive and very desirable.

REFERENCE MANUAL INTRODUCTION

The need for institutions of higher education to make use of more effective management programs has been one of the primary concerns of the university librarians. This has initiated the development of a reference manual for the Education Library, Reference Department, University of Regina, Regina, Saskatchewan.

These guidelines have proven to be successful for the past decade, giving the reference staff a feeling of power over the reference area and the ability to meet the needs of the patron.

GENERAL INSTRUCTIONS FOR THE REFERENCE DEPARTMENT

Important things to keep in mind:

A. There is a need to improve communication between the reference librarian and the user. Points to remember and to practice are:

   1. Determine the subject of the question
   2. Determine the user's need by asking relevant question
   3. Avoid the open end question-- ones that can be answered by yes or no
   4. Spend time listening to the patron (use direct eye contact)
   5. Be sensitive to his needs-- don't anticipate
   6. Be aware of body language-- smile
   7. Use counseling techniques
      a. Know the importance of the initial contacts
      b. Empathy
      c. Non-verbal behavior
      d. T.A. technique (transactional analysis)
      e. Natural feeling, warmth, tenderness

B. Following the initial contact the librarian should show increased awareness for his problem. Allow the user to expand his thought by asking him questions; if it isn't clear perhaps he should return to the instructor for clarification of the problem. The librarian should always follow up to see if this was the material the user wanted.

C. The chief concern of the reference department is to support the curriculum of the university. Be aware of the basic information about library resources:

   1. Help identify and locate all the resources available
   2. Determine the need for formal orientation
   3. Exhibit materials for topics of current interest
   4. Develop pathfinders for difficult subjects

5. All subjects taught should be covered in the library
6. Try to support extra curricula research
7. Search for favorable reviews from valid sources for collection development
8. Remember reference materials do not circulate without permission
9. Keep the environment conducive to research and study.

D. General statement:

The Reference Department gives priority to all activities involving direct service to library users. Supporting activities - such as ordering materials, and reading reviews must take second place. Service to the individual reader is the most important, next is library instruction to groups, and then bibliographical verification.

Procedures:

A. Service to users:

a. The primary responsibility of the reference staff is to provide direct personal service to those who come to the desk for assistance. Reference librarians must make a determined effort to schedule appointments, meetings and supporting activities at times when it is expected that libeary use will be light.

b. Attitude of the librarians:

The reference staff must be constantly aware of how approachable they appear to the person in need of assistance. Since the attitude and behavior of the staff on duty goes a long way towards creating an image of the reference department, the staff should make an effort to present that image as a positive one. To that end the staff should be friendly and willing to help the user.

B. Handling general inquires:

- a. General statement: Judgment should be used in determining which questions can be completed and which are best answered by providing the source
- b. Information service: Answers should be based on data in standard reference sources whenever possible. The printed source should be shown to the reader or the source should be cited. Be prepared to give some indication of its reliability
- c. Research or instruction: Some questions often require special search strategy. When you are going to be away from your post, have someone to take your place. If there is no one available, delay answering the question. Inform the user of the situation and ask him to return later: if that is not possible tell him about the reference material you had in mind.

C. Handling problem inquires:

- a. Questions received at closing time: However possible handle the question to completion, otherwise advise him to return the next day.
- b. Be alert to questions indicative of class assignments.

D. Use of the telephone:

The telephone is one of the most important means of providing service for library users. Members of the reference department are responsible for maintaining the best possible standard of telephone service.

- a. Identify the department
- b. Develop a pleasing telephone manner-- make the caller's first impression a good one.
- c. Give personal service; treat the callers as individuals. Take time to be polite. Do not leave people holding the line for more than two minutes

d. Leave effective messages-- make them clear, concise and complete

e. Complicated questions are often better answered in person. Encourage the caller to visit the library. If this is not possible, suggest a written reply.

f. The user who comes to the reference desk takes preference over the person on the phone.

WHAT IS REFERENCE?

Reference service must:

Include all media

Be individualized

Support the curriculum

Be responsive to needs, uttered or unexpressed

Expand with the knowledge explosion

Keep posted on new methods

Be available

Disseminate information

Be client oriented

Teach the user library skills in order to use the collection wisely and efficiently

MAXIMIZING REFERENCE SERVICE USING THE PARAPROFESSIONAL

In introducing new job roles or new types of personnel into an ongoing operation, e.g. employing support personnel in a hitherto relatively exclusive profession, the ultimate questions are: Is the paraprofessional effective on the job? Does he do his work as well as or better than the professionals? Does he do it with greater efficiency and at less cost? As Pearl has said with reference to teacher aides:

> Evaluating teacher aides is difficult because (1) evaluative methodology remains primitive. (2) funds are not available for such a purpose, and (3) the important questions have not been identified (1977 p. 222)

TRAINING THE PARAPROFESSIONAL

In the training of paraprofessionals as reference assistants, progress can be measured with pre and post tests. However, reference in itself is never static but learning is continuous. Satisfied users are a good indication of the effectiveness of the paraprofessional in the reference department.

There are individuals, because of their natural abilities and personal interest rather than education and training, that are already performing informally many of the same activities as professionals. It seems clear that competence and quality performance are not necessarily products of university degrees.

Most educators claim that practical or in-service experience is the most important aspect of the educational process. It is apparent that students learn most from practical experiences rather than lectures.

The philosophy, objectives, and approach to training paraprofessionals is influenced by one's view of the role of support personnel. The roles inherent in each of the following questions call for a quite different training and supervisory program:

Are paraprofessionals merely added on to the existing reference department as clerks and data handlers, or are they woven more intimately into the total service?

BRIDGING ROLE OF THE PARAPROFESSIONAL

Do paraprofessionals serve a bridging role between the professional reference librarian and library users? Do they perform technical functions or do they offer helping service? Are paraprofessionals different from professionals? If so, how? Is it that the professional is in possession of certain theory and research or teaching skills, while the paraprofessional uses "on-the-firing-line" helping skills for information retrieval? Is it that the professional can articulate a solid base or rationale for his work? Are paraprofessionals set at a sepcified level and range of tasks, or are they expected to rise to greater responsibility or to a broader range of skills?

By definition, the paraprofessional is relegated to auxiliary, technical functions which, though helpful and important, are not of the same caliber as the professional.

SELECTION OF THE PARAPROFESSIONAL

An emerging aspect of some reference departments welcomes the assistance of anyone who can contribute to the direct or indirect services for the library user. In this context, the professional role is divided among many other functionaries such as library instruction, collection development and interaction with the faculty-not everyone needs to know everything; so differentiation of tasks and levels of performance can be assigned as paraprofessionals are used. This relieves the professionals for more teaching activities.

Little is written on the selection, training and supervision of the paraprofessional as part of the library reference staff. The assumption presented here is that certain interpersonal skills and not job titles are the crucial factors influencing the outcomes of reference service. Highly specific selection criteria, quite a specific program of combined didactic (through feedback), and on-the-job experience is provided. The training is a short preservice with most supervised on-the-job.

There seems to be clear evidence of need for careful selection of paraprofessionals. Literature urges that careful attention should be given to the local needs with the hcaracteristics of the paraprofessional. Training then can concentrate on orienting a paraprofessional to his tasks and work setting thus developing the required knowledge and skills.

SUMMARY

Reference Services are affected by the financial crunch which is the direct result of inflation. Traditional one-to-one reference services can be very expensive and can no longer be the only means of educating the library user. Economically speaking the use of paraprofessionals can facilitate the more efficient use of the professionals. The professionals can then turn their attention to developing instructional programs. A major advantage of instructional programs is their ability to reach the non-library user. With the use of paraprofessionals we can thus maximize the use of the library resources in the face of rising costs, tighter budget and the decrease of personnel. The paraprofessionals can play a vital role in the library if they are properly trained. This manual will present the philosophy of the reference department, teaching theories, and methods which should be useful for on-the-job training of of non-professional. The increased complexity of information systems will be noted and the value of using paraprofessionals in this aspect will be addressed.

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LOOKING TOWARD THE FUTURE LIBRARY

What will the role of the academic library be in a few years time? Many have speculated on a "paperless society" (Lancaster, editor). According to Isaac Asimov the progress of human knowledge may be coming to a halt because of the fact it is difficult to find the specific information we need among the vast array, unless computers are used. We may have another type of librarian then - an expert who must: consider collection development, improve programming, maintain computers, add services. The time is rapidly approaching when the ability to make intelligent use of computers will be related to everyday life situations.

THE COMPUTERS ARE COMING

In a few years it will be possible to store the contents of a large research library with millions of books on a few disks at a cost of $10.00 a disk. Such enormous potential for change provides room for such speculation by Lancaster, Isaac Asimov, and the speakers at the Ninth Midyear Meeting of the American Society for Information Science (May, 1980). All forcast a bleak future for libraries as they function today. Many libraries currently unable to afford computing power will be able to purchase microcomputing systems of various kinds because of low price tag. Perhaps the most far-reaching of the information technologies are the interactive on-line searching systems that use ordinary home television sets as computer terminals. The user dials a local telephone number to connect his television set with a minicomputer in which data is stored. This could be used by librarians to provide specialized bibliographies on subjects of interest to users in the home/office.

These systems and others will help to facilitate the flow of information in the future. They will also change the form and function of libraries - speedier access to materials, better control over materials and less clerical work.

Familiar classification systems and search strategies may become ineffective and obsolete. The reference librarian should be able to use computers to gather, arrange and make information available. They will guide the information seeker toward more efficient use of these new technologies. The librarian of the future is facing a great challenge and change.

COPING WITH CHANGE

Coping with change can be painful and sad. Change which cannot be accepted can cause frustration, unhappiness and disillusionment. Universal computer literacy is not yet a goal in the educational institutions. Some say librarians may be operating outside the library in the future, that they can apply their professional skills independent of the institution, because most of the reference tools will be on computer. The librarians should be aware of this possibility and look forward to this flexible future. Librarian's skills need to be upgraded and the training of reference staff will become more comples in the future.

There are several steps which should be taken:

- determine what computer skills, knowledge and attitudes are necessary to function effectively
- after the goals and objectives are clearly in mind, the next step is to decide the curricula

At this point in the planning, attention should be given to providing adequate resources for implementation. The broad plan should be adequate for identified resources such as instructional materials, computer software, computer hardward and telecommunications capability.

The teaching staff will, themselves, require certain computing competencies and should be given the opportunity to develop or refine these skills. A useful source of training aids can sometimes be obtained from the manufacturer. Support staff can watch over the equipment and maintain system library materials. Clearly a justification exists for training reference assistance to become efficient in the use of computers for reference services.

COMPUTER LITERACY

The overall goal for the reference assistant should be computer literacy.

This consists of being able to:

- I. Understand the function and use of the components of a computer system.
- II. Utilize a systematic problem solving technique in developing solutions to a problem
- III. Analyze the role of computer technology in society and its impact on the reference department.

I. To understand the functions and use of the computer-be able to:

1. Define:

   Computer

   Flow Chart

   Input - Output
2. Describe in general terms how a computer works
3. Read a "run book"
4. Describe steps involved in "bringing up the system" and relocating memory
5. Operate the computer from the console or control panels

II. Problem solving technique in developing solutions to a problem.

1. Describe steps in problem solving approach
2. List the sequence of events involved in solving a problem
3. Know the process involved in a "Flow Chart" solution
4. Write a program to solve a problem

III. Know the role of computer technology

1. Analyze a specific innovation and point out possible uses and misuses for the library
2. Appreciate the proper utilization of technology as it assists people without hurting society and the environment
3. Based on knowledge, speculate about the future uses of computers in the library

4. Explain a tentative personal decision about the value of a computer technology to himself/herself - in the market place.

Using computer training the reference assistants will free the librarian to become a team member in the educational process with the faculty. The key element in developing a successful instructional program is the relationship between faculty and librarians. Without cooperation and communication, librarians cannot prepare relevant instruction programs for the students.

The use of computers in literature searching has resulted in more efficient compilation of bibliographies on many subjects. Many processes are streamlined now (via automation) that helps to reduce the time spent on routine questions and thus provides more time to concentrate on the more complex needs of students, faculty and research personnel. However, it seems probable that reference librarians and their assistants will still play an important role in teaching faculty and students how to use library tools and to search data bases and other sources for them.

What is library effectiveness?

Libraries that are able to supply relevant and accessible service to the user, when needed, will be considered to be more effective than those that do not. Effort must be made to match the needs of the users with the necessary materials.

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PHILOSOPHY OF REFERENCE DEPARTMENT

GOALS FOR LIBRARY USERS

The main goal of reference service is to interpret the library's collection for the library user. In order to achieve this goal it may be necessary to explain how to use the card catalogue, the indexes, giving a tour of the library and answering many types of questions. The only reason for the existence of references services is to give information to the users of the library.

GOALS OF THE PROFESSIONALS

The role of the professional should include the following:

1. Supporting scholarly investigation
2. Instruction of students
3. Research in library interest, i.e. how effective are the present methods; evaluation of student's use of library
4. Refining technological methods of information retrieval
5. Critically assessing materials for collection development
6. Providing information services
7. Participation in the process of teaching and research
8. Publishing - Bibliographies
   Development of technique
   Research

GOALS FOR THE PARAPROFESSIONAL

The goals of the program for training paraprofessionals should be broad and inclusive with an emphasis upon teaching the paraprofessional a repertoir which will allow them to have confidence in:

1. Understanding library terminology.
2. Using the card catalogue as a key to the resources in the library.
3. Using Library of Congress subject Headings; descriptors in the ERIC system for searching.
4. Using ready reference materials

5. Using specialized educational materials.
6. Knowing how to interview for understanding the meaning of a reference query.
7. Performing a search for the answer to a query and choosing the reference source.
8. Preparing bibliographies
9. Choosing the most useful index
10. Understanding the quantity, quality and diversity of the materials that are housed in the library and their usefulness for the students and student teachers.

TYPES OF REFERENCE QUESTIONS

Types of information (questions) may fall into the following categories:

Directional and Ready Reference - usually short, factual and easily located in standard reference source. These can be handled by the non-professional.

General Questions on specific topics - is one which requires several sources to obtain an answer. Question of this type should be referred to the librarian.

Research Question - usually requires several sources, the resources of other libraries (such as using inter-library loans for material). This is always handled by the librarian although the reference assistant may help.

Reader's Advisory - The library user wants material on a particular topic and is interested in the "best book" on the subject. This type should be referred to the librarian.

In actual reference work it is sometimes hard to put each question into a specific category. Each question must be skillfully analyzed, this takes practice and on-the-job experience.

ASPECTS OF REFERENCE SERVICE

The staff manual will clearly define the limits placed on reference service as well as to how much help will be given to students working on specific projects. Regardless of the reference service policy, there are always exceptions made. These are made by the librarians depending on the political aspect i.e. the head of the University or dean would be provided with the answer to his question--not shown how to find it.

The use of common sense and respect for the other person are the basis of good reference technique. The library user should be made to feel at ease and not afraid of asking any question. During the process of asking questions the reference staff (professional or non-professional reference person) should be trying to determine the type of question. A smile and a pleasant word will go a long way to make the enquirer feel at ease. Once the question has been asked, determining the exact information needed and the scope are the first and most important steps and then deciding on the source best suited to answer the question.

SELECTION OF REFERENCE SOURCES

The selection of reference sources is different in even the same library because it is an individualized process, even when administering to the same actual and anticipated needs of the clients. No reference collection exists that will serve the needs of every user.

In academic libraries, selection is based primarily on the curriculum. Careful selection is important. Some guidelines that will help are:

1. Know as much about the needs of the user and the depth of coverage needed.
2. Call upon expert advice such as a subject specialist, for evaluation of reference materials.
3. Keep a record of questions so as to know what area needs material.
4. Know what resources are available and what other libraries can supply.
5. Frequency of use. Some materials are placed in reference collections simply because they are used often.

REFERENCE DEPARTMENT ACTIVITIES

	PROFESSIONAL LIBRARIAN	PARA-PROFESSIONAL	LIBRARY ASSISTANT
GENERAL			
1. Establishing policy	X		
2. Assigning personnel	X		
3. Public relations	X	X	
4. Book selection	X		
5. General supervision	X		
6. Working with Faculty	X	X	
7. Bibliographic and location search		X	
REFERENCE			
8. Initial patron contact at reference desk	X	X	
9. Answering general information and directional questions	X	X	X
10. Answering Simple reference questions	X	X	
11. Interviewing library users and answering reference questions	X	X	
12. Compiling Bibliographies	X	X under supervision	
13. Explaining use of card Catalogue	X	X under supervision	
14. Explaining use of Indexes	X	X under supervision	
15. Recommending material for purchase	X	X	
16. Establishing subject headings for vertical files	X		
17. Recommending subject headings		X	
18. Up keep of reference files and materials	X	X (under librarians directions)	

WHY TRAIN?

Trained persons can do things better than those who are untrained. This would be self evident, but it is surprising how widespread is the idea that no special training is needed for reference assistants, they will just by working closely together pick up necessary information. Skilled behaviouris rewarding to all. It is useful to those who are subjected to it and satisfying to those who exercise it.

What did not work as well as what succeeded can be instructive. Trust must be established before failure can be shared. What steps should be taken for improvement?

Experiences reported by the reference assistant can be useful. It is important to tap this source of knowledge in more systematic ways through interviews, observations,keeping of journals and diaries.

The importance of practice, observations and extensive feedback

NASCENT IN THE LIBRARY

"Nascency" has been chosen as a theme for the training of reference assistants. Webster defines nascent (adj.) as "(1) the coming into being; being born: (2) beginning to form, start, grow, or devleop: said of ideas, cultures, etc." The term seems to apply to the idea of training non-professionals for reference work. This could result in a set of ideas subject to the circumstances of individual interest resources and vision for a continued process of training the non-professionals. It is true that the training of non-professionals in the reference department is in a state of nascency-but that its value and effect will continue to grow-if given opportunities especially in view of continued reduced budgets. In this period of nascency all librarians should share ideas regarding the training of the non-professionals.

The in-service work needs to be planned and conducted by very knowledgeable and competent reference librarians in both theory and practice.

If the reference assistants are to contribute to the development of educational goals and purposes for the library user and the reference department they need to have at their command skills, knowledge and attitudes which will enable them to direct the library user in his research. It is obvious that there is a distinct need for a practical handbook which would include:

Basic reference sources
Practical procedures for the use of the indexes, card catalog etc.
Practical materials for implementing the procedures

SUPERVISING

Greater skills, patience and coordination are needed to supervise reference assistants whom you may see one afternoon a week than to supervise an employee who works in the library five days a week. This happens when the budget only allows for part time reference assistance. Usually he/she may be scheduled when the reference need is heavy and varied. This is when a written guide book or outline is valuable, so that the reference assistant will not become discouraged when they have forgotten some fact or method of searching.

Supervision should keep pace with the training program--do not expect "too much too soon"

Job description is very important. Supervisors can only supervise in relation to the duties as outlined in the job description, thus indicating that he has understood and approved all that is expected of him, his time and his abilities.

The reference trainee must feel welcome to communicate with the reference librarian, to express opinions and to make suggestions. Their suggestions may be excellent ones. Sometimes better results are obtained if a request is made instead of a command. If they refuse the request an attempt must be made to understand the refusal. The librarian can offer to do the job and give the trainee something more suitable to his level of training. Talking clears the air, so give the trainee a chance to explain the refusal. The supervisor needs to be trained in the skill of listening, understanding and eliciting cooperation.

Supervision can be performed intwo authoritative ways. One depends upon power alone and the prestige that comes with being in a management capacity. The other comes with being respected, which must be proven and earned. Methods of leadership will determine the amount of respect the trainee will give to the reference librarian training him. An effective supervisor leads, not drives.

A boss drives-a leader helps. He encourages the trainee to identify himself with the functions of the library and to work to build a reputation of service.

Build a sense of security in the new reference assistant by:

Radiating confidence

Being honest and sincere

Being fair, impartial and generous

Showing sympathetic understanding

Explaining carefully what his job entails.

Explaining not only what but also why

Build his ability and show your confidence in that ability. Suggest, but don't criticize. If criticism becomes absolutely necessary do it privately, make it sincere and constructive. When you are wrong, admit it. Don't condemn inactivity--suggest a program for activity. Welcome suggestions, ask for advice and opinions.

Some negative effects of direct service from the new reference assistant that should be watched for are:

the new reference assistant may not recognize situations which should be referred to the professional staff

The new reference assistant may try to help too much, keeping the library user from growth and defeating the intention of the professor for that particular class.

The library user may thus expect similiar attention in subsequent relationship with the reference department.

Good leadership means practicing leadership by:

personal example

vocational competence

effectiveness in human relations

guidance in solving problems

providing motivation

A two-way communication process is essential to the establishment of working relationships. Often non-verbal communications (body language) is as important as verbal communication.

The supervisor should show:

Respect for the dignity of the person

Trust in the individual

Good listening habits

Good observing techniques

Patience

A sense of humor

Ability to laugh at ones self

Capacity for admission of mistakes

Capacity for saying "I don't know, but I'll try to find out."

Dependability (keeping one's promises)

Greater concern for the needs of persons than for own needs in terms of time, convenience, etc.

Abiltiy to offer alternatives

Readiness to give praise whenever appropriate.

MOTIVATION FOR ACCOMPLISHING THE ORGANIZATIONAL GOALS

An individual's behavior is motivated primarily by the desire to satisfy needs. An important contribution to motivations theory was made by A. Maslow. He viewed man with five levels of basic needs - physiological, safety, love and belongingness, esteem and self-actualization. He believed that these needs are related to each other, that an individual's behavior is motivated by the desire to satisfy needs at the lowest unfulfilled level. It is the unsatisfied needs which motivates behavior. Many psychologists believe that additional economic reward is not sufficient to motivate organizationlly desirable behavior on those who are already well-paid. It is more important to concentrate on practices which would tend to satisfy higher=level needs--a process of creating opportunities for encouraging growth, to create an atmosphere in which the personal needs can be met by working toward the accomplishment of the organization--reference department--goals and objectives. Not all behavior results in the satisfaction of needs. Behavior also occurs because individuals fail to satisfy their needs. This is related to individual levels of aspiration and whether one tends toward high need achievement or failure avoidance. Success seekers set high levels of aspirations, while failure avoiders set low levels of aspiration.

Generally, morale and productivity are enhanced as a result of participation, according to Chris Argyis. Thus, interaction between the reference librarian and the assistant exposes the assistant to the expectations of the reference department. They observe, evaluate and exert pressure to influence him so that he will perform to their expectations.

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COMMUNICATING PERFORMANCE EXPECTATIONS

In order to improve the performance of the staff/reference assistant make sure the staff members know:

1. How to perform a given task
2. At what level they are expected to perform

To communicate performance expectation these techniques can be used: performance objectives, evaluative criteria, flow charts, and LAPS (pre and post tests).

Each separate task that is necessary for the reference assistant to perform is identified with a written performance objective, criteria for success and a flowchart. The performance objective tells the worker what terminal performance is expected, as well as what materials are needed to perform the tasks. A criterion checklist of observal cues helps the worker evaluate whether the task has been performed satisfactorily. The flowchart relates the steps needed from beginning to end, in such a way that even a new or unskilled worker can perform the task. Now when staff members haven't performed a task for sometime, they can review the procedures in the reference manual. For prospective personnel, the manual gives the most detailed description of the job's responsibilties.

Obviously, a manual of standard operating procedures cannot replace personal communication but it can help so that they can evaluate and improve their own work. Imporved staff performance means more efficient operations and better service.

FACTORS IN MORALE

As the supervisor increases his knowledge of human behavior, he soon becomes aware that people behave in similiar fashion in similiar situations. Where there is good morale minor irritations tend to be handled with ease. Even when the job may offer little satisfaction, good adjustment may be maintained where the paraprofessional has a good relationship with fellow workers.

Meany Balhr and Richard Renck report three major approaches to the problem of defining employee moral:

1. "Needs psychology" - concentrates on personal determinants of morale. Employee moral will be good to the extent that the work situation permits the satisfaction of personal needs, either directly or indirectly.

2. Hierarchy of needs as outlined by Maslow. The first need to satisfy is his psysiological needs, then higher needs will emerge until the highest of self-realization is satisfied.

3. The patterns of group activity is an important factor in morale. This approach emphasizes the importance of social motives and the need for regular association with other persons.

Most managements are built on certain concepts: (Illustrated in Douglas McGregor's Theory X.)

1. An authoritarian system is based on three basic concepts of man:
    a. The average man dislikes work and will avoid it if he can.
    b. To get work done he has to be coerced - motivated - threatened.
    c. He prefers to be directed in order to avoid responsibility; he is thus lacking in innovation and desires security.

McGregor developed six major premises for a more effective method of management, Theory Y:

1. The expenditure of physical and mental effort in work is as natural as play or rest. The average human being does not inherently dislike work.
2. External control and the threat of punishment are not the only means of control. Man will exercise self-direction and self-control in the service of objectives to which he is committed.
3. Commitment to objectives is a function of the rewards associated with their achievement - such as satisfaction of ego and self-actualization needs.
4. The average person under certain conditions seek responsibility. Avoidance of responsibility, lack of ambition, and emphasis on security are generally consequences of experiences, not inherent human characteristics
5. People will often exhibit creativity in solving organizational problems.
6. The intellectual potentialities of the average person are only partially utilized.

In writing about Theory Y, McGregor advocates that the supervisor restrict his own authority to essentials. The preferences of the individual must be given equal weight with the preferences of the organization. In addition, work objectives and the means of reaching them must be determined in consultation with all persons involved. Managerial and staff activities are defined as services rather than controls.

There is another Theory according to Robert R. Newton of Boston College - Theory N. Theory N recognizes that people are different and provides a more congenial set of assumptions for the supervisor than either Theory X or Theory Y.

James Pratt proclaims that the missing factor is self-esteem and calls this the Z factor. A successful administrator with the Z factor shows evidence of positive feelings of understanding, hope, and enthusiasm toward others. He understands himself and thus gains empathy for others. Other types of management will fail because using all types of techniques without inner change is futile.

These are important concepts that should be considered in the training of the paraprofessional in the reference department by the professioanl librarian. Whatever type of management the supervisor practices, it is essential that he take into consideration the behavioral needs of the paraprofessional if the relationship is to be successful. The librarian should be willing to observe, attempt to understand the subordinate's needs and try to handle behavioral problems with as much care as any other type of problem. Many of the behavioral problems are the result of change. Change has become an integral part of life today. Technical advances are rapidly changing the traditional library. Paralleling the pattern of change is resistance to change.

Time and work pressures may make it difficult for the professional librarian to gain a real understanding of the para-professional. By observation of the paraprofessional in the work situation one can gain insight into their actions and reactions. Other helpful activities are listening, interviewing, participation. By enabling the paraprofessional to participate, to express opinions and ideas, the professioanl librarian can learn more about their behavior.

Each of these methods can be useful to the supervisor who is trying to get a better understanding of the paraprofessioanls. None of these techniques are really new or different, but they can help toward understanding changing attitudes and behavior and give some insight into the total person.

STRESS ON JOB

The paraprofessional will encounter problems related to self, family and friends. In addition work conditions, administrative policies, relationships with library users and staff can all cause anxiety and frustration. These aspects of living and working can all give rise to stress. So the maintenance of a positive, healthy, mental outlook is extremely important. Recognition of problems, awareness of possible reasons for them, and a willingness to remedy them are necessary steps in promoting positive mental health.

By observation of daily behavior, the mentally healthy person can be identified. The paraprofessional would be expected to exhibit signs of positive mental health such as:
Control of behavior - which means she is able to follow the rules or customs set down.
Sensitivity to Others - is sensitive to feed back from others.
Ability to communicate. She is able to talk to others, to understand them, and to make herself understood. This does not imply that she should monopolize the conversation but if she has something on her mind she is not afraid to say it. She is able to focus on the problem and make clear, logical statements. She notices facial expressions, body language and gets the real message.

Effectiveness in Work

The mentally healthy paraprofessional is competent in her work. She is able to do her assigned duties in an adequate manner. However, if she does feel a lack of skill she will request assistance.

Ability to Deal with Mistakes

Does not have a "guilt trip" but only assesses the seriousness of the mistake and learns from it and is able to bounce back and returns to her usual emotional level in a reasonable length of time.

Positive self-concept

A positive self-concept is a pre-requisite for good emotional adjustment. It is important for each person to understand herself and her behavior.

There is no one answer to stress. Only the individual can resolve his or her own stress problems. Some principles that may be considered for dealing with the stress that may be harmful are:

(1) try to set realistic goals

(2) Avoid procrastination

(3) Take time for self-evaluation, mediation, contemplation- a quiet time for sorting out activities into their proper perspective.

(4) Make the most of the present. Avoid worrying about the future.

(5) Healthy life style - exercise, adequate sleep, balanced diet.

These coping strategies are only an introduction. Many more have been found to be effective.

[redacted]

STRESS PREVENTION

There is evidence to indicate that occupational stress can cause both mental and physical ill-health (Cooper and Marshall, 1976: (Kasl, 1978). Research on how teachers attempt to cope with occupational stress is just beginning. (Kyriacon, 1980). The study of differences between occupations may help us to understand what characteristics of the job can cause stress.

There is an agreement that stress is caused by effort without success, (failure) feeling of helplessness, low self-esteem, and life without hope or pleasure. Through self-direction you can plan for success, feel a greater sense of well-being and anticipate a hoepful future. We can choose to become positive, self-directing, hopeful.

How can this change happen? It is important to understand that human behavior is influenced by human needs. This can be illustrated by using the Venn diagram to describe the interaction of the professional, paraprofessional and the situation.

No. 1
The librarian
self -
his perception
and behaviour

No. 2
Para-professional
his self-concept
and behaviour

No. 3
The situation

As interaction takes place. Through the area of effective interaction (the crossed lines) each can help the other to see the parts of the situation that are obscured.

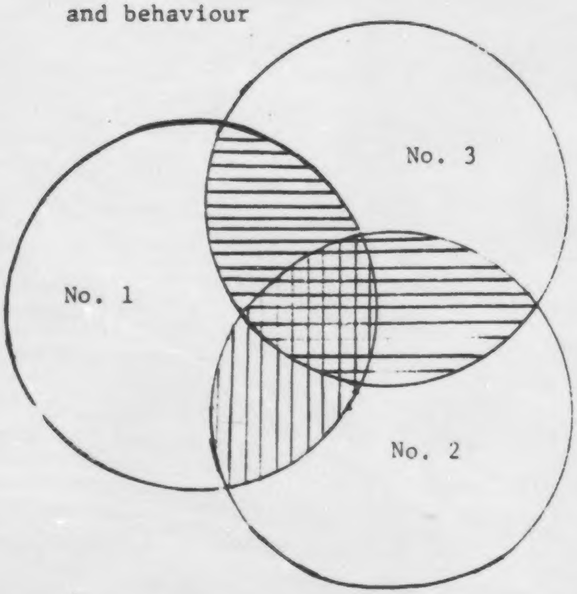

Diagram illustrates how an understanding of human behaviour can lead to satisfactory working conditions for both supervisor and the para-professional.

Signs to Watch for:

Most people strive toward adjustment. They seek a state of things in which they are relatively satisfied. Inability to adjust causes frustration. And frustration causes problems. Employees, if they are frustrated, will be dissatisfied. Their morale will be low, the quality and quantity of their work will be low and there will probably be a high turnover and rate of absenteeism.

How can we recognize frustration? There are many different reactions to frustrations - the six which are most common are:

Aggression
Rationalization
Withdrawal
Regression
Fixation
Resignation

Aggression:

A person reacting to frustration in this way may show his aggression (fighting behaviour) either directly or indirectly. When aggression is expressed directly, the person or thing which interferes with the attainment of a goal is attacked--physically or verbally For example an individual may pick arguments with others or spread derogatory rumors about one he considers a barrier which is blocking his goal.

Instead of taking his anger out on a person or thing blocking him from reaching his goal, the individual may act aggressively toward an innocent person or some object unrelated to the situation because he may be afraid of attaking the barrier directly.

Symptoms of aggression are: excessive criticism of management, complaints, grievances, unrest, tension friction between employees, turnover.

Does aggression reduce frustration? Usually not.It simply helps to relieve, atleast temporarily, the mental and physical tension built up by frustration.

Rationalization

Another way in which a person may react when he is unable to solve his problems is to make excuses. It is a way of justifying one's behaviour. Rationalization is not actually an especially undesirable way of expressing frustration. They do help us to accept a situation that is not quite the way we would like it to be. If it is used to the extreme the behaviour tends to become unconstructive. The employee who is alwyas making excuses for himself will not try to improve. After all, things or people other than himself are to blame for his difficulties and failures.

Withdrawal

It often happens that an individual tries to escape from a frustrating situation by physically or mentally withdrawing from it. He doew not try to solve the problem or cope with the situation; he justs runs away from it. Sometimes by day-dreaming or by getting sick.

Regression

Regression is a breakdown of constructive or problem-solving activity and represents a return to childish behaviour. There are many ways in which regression may be express: sulking or pouting when we cannot get what we want, lying to impress others with our importance, believing everything we hear (as a child might) and needing constant praise when we do well.

Fixation

Fixation is behaviour that is repeated over and over again, in spite of the fact that it has already proved unsuccessful - i.e. persisting in using his old method even though he knows it is open to criticism and is not as effective as one he has been shown.

Resignation

There is no enthusiasm, no desire to get ahead - apathetic, listless and disinterested usually found in people that have experienced many failures. He is a poor leader and a reluctant follower. This is probably the most frequently observed reaction to frustration on the job--this person will say "I'll do my job and no more." This is a comfortable and reasonably safe way of expressing frustrations that are encountered in the work situation--as management can hardly penalize him for doing his job.

Look for these tip-offs for--

Aggression

- Hostile - complains and argues
- Quarrelsome
- Defensive and suspicious - unable to get along with others
- Careless about library materials
- Derogatory - spreads rumors, insults people

Rationalization

- Makes excuses, uses alibis
- Belittles what he cannot get
- Exaggerates merits of present situation
- Irresponsible - uses the easy way out
- Blames others for own failure - is overly critical of everything but himself.

Withdrawal

- Is often tardy - does not care if he is late
- Daydreams - is unable to concentrate, lets mind wander
- Chronic absentee without good reason
- Overly concerned with his own health

Regression

- Reverts to childlike behaviour and feelings
- Over-sensitive

21

Overly dependent on others

Generalizes -- does not recognize inconsistencies

Tries to impress people - boasts

Fixation

Stubborn - rigid - inflexible

Unwilling to change

Does not accept new ideas

Has strong likes and dislikes

Does not profit from mistakes

Resignation

Lacks ambition and drive

Stresses everything that is bad

Does not assume responsibility

Does not plan ahead

Influences co-workers in a negative way

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REFERENCE SERVICES

A GUIDE TO TEXTS AND RESOURCES

Information Indicators	Location	Ref. No.
The Library		
Activities carried on in libraries	143	4
Statistics about libraries	215	11
The University library	288	4
Evaluation		
Formative evaluation	3	10
Learner characteristics	19	10
One-to-one evaluation	93	10
Gain scores	97	10
Learning Theory		
Individualized instruction	157	7
Delphi method	228	7
Curriculum renewal	352	7
Use of educational knowledge	216	7
Philosophy		
Code of Ethics	362	4
Freedom to read	368	4
Library Bill of Rights	373	4
Reference		
Aids for selection of materials		
Retrospective selection	8	6
Current selection	10	6
Collection		
Card catalogue	25 51	2 3
Organization and administration	173	12
Selection and evaluation	177	12
Guides to General reverence works	1 174 180	6 6 6
Materials for ready reference		
Almanacs		
General	153	8
Subject	183	8
Atlases	111 271	3 14

Information Indicators	Location	Ref. No.
Audio Visual		
Media Sources		
Multimedia	7	13
Microforms	9	13
Media Selection		
Reviewing Media	15	13
Audio Visual Materials	38	6
	297	14
Bibliographies	155	14
	122	3
	2	6
	15	6
	174	6
Biographical	209	14
Materials for ready reference		
Book reviews		
Indexes to Book Reviews	12	6
Book reviewing Periodicals	12	6
Dictionaries	1	14
	245	8
	71	3
Language	54	6
Special	61	6
Directories	158	8
Encyclopedias	41	14
	4	6
	80	3
Children's and young people	46	6
Evaluating encyclopedias	90	8
General	89	8
	45	6
Subject	129	8
General information sources	65	3
Geographical sources	287	8
Government Publications	129	3
	317	9
	235	14
	79	6
Canada	80	6
Great Britain	88	6
United States	86	6

Information Indicators	Location	Ref. No.
Materials for ready reference continued......		
Handbooks	116	3
	91	14
Indexes	2	6
	119	14
	62	8
	87	3
Yearbooks and annuals	67	14
	153	8
Reference Books		
Practical use of reference books	34	2
Sources	65	3
General reference books	1	1
Specialized reference books	121	2
	151	3
	154	6
Reference Services		
Academic libraries	94	12
Communication system	22	9
Current awareness service	118	12
Information Sources	12	8
Inservice training	89	12
Interview	69	9
Analyzing the question	78	9
Non-professional personnel	85	12
Reference Process	3	8
Reference service and the public	6	8
and the library	10	8
Reference textbooks and manuals	58	12
Search strategy	149	12
	101	9
Telephone and mail service	116	12
Selected Specific Subjects		
Art	115	6
Automation		
Automation in libraries	320	4
Computer assisted Instruction	4	13
Directories of data bases and information services	247	12
The library and the computer	217	9

Information Indicators	Location	Ref. No.
Selected Specific subjects continued......		
Books about people	86	2
Books and Places	80	2
Books about Words	72	2
Business	155	6
Children	16	5
Communication Media	86	13
Crafts	91	13
Drugs	94	13
Education	101	13
	71	5
	502	1
Folklore	835	1
Health	110	5
Information Sources in the subject fields	151	3
Law and Government	267	5
	165	6
Linguistics	192	13
Literary Prizes	427	11
Best Children's Books	438	11
Notable Books	436	11
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Children's	247	13
Literary Prizes	241	13
Social Sciences	495	1
History	185	13
Humanities	703	1
Philosophy	91	6
Political Science	311	13
	161	6
Psychology	322	13
	353	1
Music	129	6
	289	13
Mythology	300	13
Religion	94	6
Bible and related texts	86	1
World religions	143	1

Information Indicators	Location	Ref. No.
Sciences	187	6
	398	1
	476	
Astronomy		
Biological Sciences	189	6
	68	13
Botany	71	13
Chemistry	206	6
	83	13
Earth Sciences	209	6
	97	13
General Sciences	189	6
Health Sciences	217	6
Mathematics	197	6
	280	13
Physics	203	6
Sports and Recreation	358	13
Statistics	176	6

LIST OF REFERENCES FOR USE IN LIBRARY INSTRUCTION

REFERENCE NO.	AUTHOR, TITLE PUB. DATE	SUMMARY
1.	Clarke, Jack A. (ed). The Reader's Adviser. 12th edition, Volume 3. New York & London, R. R. Bowker Co., 1977	Main emphasis is on recently published material, yet many standard works that are available in reprint form have been added.
2.	Downs, Robert B. and Clara D. Keller. How to Do Library Research. Second Edition. Urbana, University of Illinois Press, 1975.	Guide to library research with examples of questions and typical answers provided.
3.	Gates, Jean Key. Guide to the Use of Books and Libraries. fourth edition. New York, McGraw-Hill Book Company, 1979.	Description of library materials, their organizations and usefulness for specific purposes - emphasis is on how to use information sources.
4.	Gates, Jean Key. Introduction to Librarianship. New York, McGraw-Hill Book Company, 1968.	Gives understanding of major library objectives, services and needs available teaching materials, facilities and resources, methods of instruction as well as trends, issues and problems.
5.	Gotsick, Priscilla et al (comp). Information for Everyday Survival: What You Need and Where to Get It. Chicago, American Library Association, 1976.	Lists books, pamphlets, A. V. materials games from many sources with complete ordering information as well as a brief description of the item.
6.	Henderson, Diane(ed). Guide to Basic Reference Materials for Canadian Libraries. Fifth Edition. Toronto, University of Toronto Press, 1977.	Serves as an introduction to basic and representative reference works in all major fields. Many of the new titles are Canadian. All are briefly annotated.
7.	Hug, William E. (ed) Strategies for Change in Information Programs. New York, R. R. Bowker Co., 1974	Sample works contained in this book predict that the future of the library - media - information requires many new specialities away from those that have outlived their usefulness.
8.	Katz, William A. Introduction to Reference Work. Volume I. Basic Information Sources. Second Edition. New York, McGraw-Hill Book Co., 1974	Relates what actual reference is all about; helps the user to discover how to use the library in a more meaningful manner.

REFERENCE NO.	AUTHOR, TITLE PUB. DATE	SUMMARY
9.	Katz, William A. Introduction to Reference Work. Volume II. Reference Services and Reference Processes. Second Edition. New York, McGraw-Hill Book Co., 1974	Emphasis is placed on the reference process how total information sources may be processed and retrieved for the users.
10.	Lawson, Tom E. Formative Instructional Product Evaluation: Instruments and Strategies. Englewood Cliffs, N. J., Educational Technology Publications, 1973.	Explains the process of evaluating instructional materials using formative evaluation.
11.	Miele, Madeline, et al (eds) The Bowker Annual of Library and Book Trade Information with Cumulative Index 1972-1976. 21st edition. New York, R. R. Bowker Co., 1976	Serves as an almanac, a handbook and a factfinder. Through written articles, compiled statistics (updated every year) provides the most important information librarians need as a base for their programs, decisions and answers - reports on library developments in Canada, Great Britain, Norway, China and other countries.
12.	Murfin, Marjorie E. and Lubomyr R. Wynar. Reference Service: An Annotated Bibliographic Guide. Littleton, Colo., Libraries Unlimited, Inc., 1977	Listing of articles and books that will help reference librarians in gathering information, facts and sources also in evaluation, planning, decision-making, solving problems and expanding reference services with the idea it may stimulate research needed to improve reference service. Covers all aspects of reference service.
13.	Wynar, Christine L. Guide to Reference Books for School Media Centers. Littleton, Colo., Libraries Unlimited, Inc., 1973.	Contains annotated entries for reference books and selection tools for use in schools and colleges by students, teachers or by media center personnel for all subjects.
14.	Ziskind, Sylvia and Agnes Ann Hede. Reference Readiness A Manual for Librarians and Students. Second Edition, Revised and Enlarged. Syracuse, New York, Gaylord Professional Publications, 1977	Intended to guide the student to and through selected reference tools with suggested search questions designed to familiarize the user with the material.

TWO
FOR
THE
SHOW

THREE
TO
GET
READY

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JOB ORIENTATION OF THE PARAPROFESSIONAL

Orientation should be short and provide a warm welcome reception to the new reference assistant giving him/her a sense of belonging. Self-development of interest will result when he understands how and why he is furthering our work and benefiting some one else. Single description of channel of authority will be helpful and will result in discretion and loyalty without any prompting. A successful orientation will teach the reference assistant to approach the task with an open mind, to be sensitive and to sense frustrations.

The next step in the orientation is to familiarize her/him with the job description. This may be accomplished by:

Informing him/her about the duties. How they will be done - skills needed as well as the level expected.

Defining the personnel responsible for guidance, supervision and consultation.

Providing necessary materials for on-the-job-training.

A thorough indoctrination in all these areas will give the reference assistant confidence that he understands the functions of the library and his assigned duties.

IN-SERVICE TRAINING

Day to day, on-the-job training is continuous in-service training. It should be a constant strengthening process thoroughout his service experience, enabling the reference assistant to grow and become more independent. As he works on the job, we can observe how readily he is understanding the duties as outlined in the job description. He/She may have learned all the skill training quickly but still needs more help in attitudes. Background, past experience, education, motivations and attitude will all influence the amount of in-service training he needs.

OBJECTIVES

The ideal training function will have as its goal a plan to continually develop the skills, knowledge and attitudes of the reference assistant to preform their assigned tasks of helping the library user. It must be kept in mind that the whole person should be trained. Learning is a phenomenon that takes place within the individual and as a result of his efforts. Libraries must provide the means for learning to take place, every day and in every way.

CHALLENGE

The challenge is to instill into the reference assistant an attitude that they have to believe that it really makes a difference whether they do well or badly. They have to care. They have to believe that their efforts as individuals will mean something for the library as a whole and will be recognized as representing the library.

THREE D's

The following 3 D's might help:

...Dedication
...Diligence
...Discipline-this will give depth to their work.

USER GOALS OF THE EDUCATION LIBRARY

The immediate and long-range goals of the Education Library can best be expressed by using Bloom's Taxonomy of Educational Objectives. Cognitive, affective, psychomator objectives are:

1. Expose the students to a wider variety of opinions
2. Teach reference sources available in specific fields
3. Help students learn how to evaluate conflicting opinions
4. Give students a feeling of confidence in the ability to follow a plan or method for research in a given field (such as being able to find suitable types of materials for the topic - primary sources, etc.).
5. Enjoy library

Instruction for reference support staff is influenced by the type of instruction needed for the university students faculty and the community. Programs for the library user are based on the assumption that the library can supply their informational needs and that the user needs to learn how to locate information they need by specific user instructions.

METHODS FOR USER INSTRUCTION

Methods usually employed are:

Orientation - the introduction of students and faculty to the library, to location of resources, the services offered and how to use the library.

Library Instruction that responds to the real needs of the stu-ents either by seminars, guides, individualized instruction. Individualized instruction may use computers, library pathfinders, specialized bibliographies and subject guides to the literature as well as point-of-use programs. But the best automated program cannot compete with direct communication. Live teaching is the best.

Today it is more and more recognized that timeliness is important. Library instruction is more effective at the time of need. It is most apt to be appreciated if it is presented when related to a specific need. It is important to remember instruction must be followed by practical application of the skills taught. It is important to understand how a person learns - what is the function of the brain.

NEW UNIVERSAL LEARNING THEORY

INVOLVING THE BRAIN

Scientists now have massive evidence indicating that the two hemispheres of the human brain are responsible for different functions and capabilities. The left hemisphere, for most people is the site of logical, analytical, linear, and propositional thought. It has primary control not only of the right side of the body but of such functions as talking, reading, writing, mathematical calculations, immediate verbal recall, time sense, order and most activities involving linguistic and numeric processes. The right hemisphere controls the left side of the body and there is located that which controls tactile sensations, visual memory, dreaming, body awareness and movement and many of our emotions.

This seems to indicate that learning should involve both sides of the brain in the same situation, by providing resources that emphasize learning by doing(right brain) as well as thinking about what is being done (left brain)

LONGER LASTING LEARNING (LLL)

Evidence is mounting that such approaches to learning which utilize input from both the left and right hemispheres will result in greater and longer-lasting learning.

Jerome Bruner (1973, p. 17)"the first object of any act of learning, over and beyond the pleasure it may give, is that it should serve us in the future. Learning should not only take us somewhere, it should allow us to go further more easily."

LEARNING MODELS

Many learning models are based on Bloom's Taxonomy, Guilford's structure of intellect of Parnes' creative problem solving approach.

Daniel E. Griffiths, in his book, Administrative Theory, discussed a model ~~presupposing a rational~~ decision process:
presupposing a rational decision process.

1. Recognize, define and limit the problem.
2. Analyze and evaluate the problem.
3. Establish criteria for evaluation of the solution.
4. Select the preferred solution.

A model is considered to be a logical mental simulation rather than reality.

USING A TAXONOMY FOR LLL

The purpose of using a taxonomy or model is to obtain an arrangement of a process to support relationships, as the process of inquiry depends upon theories, principles and procedures that are, strictly speaking, the essence of taxonomy.

ESSENCE

The "essence" of an approach to learning is truly a cognitive approach too broad to be circumscribed by a step-by-step method. The Greeks looked at a chair and said it had an "essence" and many "accidents". The essence of the chair did not depend on the color or the shape of the legs. These features were "accidents". Of course you could shorten the back and lengthen the legs so that the chair lost its "essence" and became a table. This can be related to teaching the paraprofessional the "essence" as well as the accidents of information retrieval.

KEY LEARNING TECHNIQUE

A key learning technique taken over from spoken language is repetition. With frequent repetition of everything from small skills to larger ones, competence and confidence is achieved. It is important to distinguish between essence and accidents. The research listening study supports the hypothesis that important material should be repeated in order for the majority to learn new material. (See appendix for description of the research.)

Bloom and others in Taxonomy of Educational Objectives - The Classification of Educational Goals Handbook, have carefully collected a set of objectives which have been divided into knowledge, comprehension, application, analysis, synthesis and evaluation. In examining Bloom's different levels of knowledge of specifics we perceive that there are no equivalent levels of comprehension. Comprehension is not synonymous with knowledge of specifics. However, in spite of such criticism, it is useful as a checklist in deciding what elements are important when devising a course to teach reference.

TOOL-MAKING TOOL

David Lambourn in an article which appeared in Oxford Review of Education (1980) asks "Suppose that instead of offering a tool for teaching we were able to offer a 'tool-making tool'? Is there something which could be used by the teaching staff to create their own tools, by which they could generate their own knowledge of their teaching task? Could such a tool-making tool be discovered or devised?"

SEEING BECOMES LEARNING

His solution is the development of an outline in which "seeing" (his chosen example) becomes "learning."

1. Select an analogy: "Seeing is like learning."
2. Seeing is a decision-making process (Bruner et al 1967)
3. Seeing is but part of a perceptual system (Gibson, 1968)
4. Seeing is a rapid hypothesis generating and testing system (Gregory, 1974)

CONCEPTS OF INFORMATION

Very little material already exists which attempts to illuminate and develop the concepts of information. Basically though, the task is not complex but relies upon an understanding of the nature of information, how it is generated by people, things, and organizations and the uses to which it is put. Verbalising is an ideal method--reference people like all learners, learn best through verbalizing how they feel, what they think.

FACTORS AFFECTING THE LLL

- contiguity (time relationship between stimulus information and elicited response)
- repetition
- reinformcement - These three are considered to be the external factors.

However equally as important are three internal factors:

- availability of required information
- Intellectual skills (abilities to manipulate the information
- cognitive strategies (the ability to process or interpret into meaningful information)

CHARACTERISTICS OF A GOOD LEARNING SITUATION FOR LLL

Good learning situations have five essential ingredients:

The learner must be ready.

The learning must be efficient.

The learning materials must be accuarte-cover what is intended.

Learning needs must be met.

8

IMPORTANT TEACHING TECHNIQUES

"How shall I teach this?" is a question every teacher has asked time and time again. Most teachers are concerned about effective teaching techniques. Some feel that the technique makes the teacher, but teaching is essentially interpersonal interaction which goes a long way toward conveying ideas, concepts and facts to the learner.

There are three basic teaching techniques: expository, discovery and experimental approach. These in turn are sub-divided into the following: The interrogative, the realia or object teaching, the multi-sensory approach, vicarious learning, teaching by experienceing, teaching by tests, comparison, trivia, by examples, role playing, games, repetition.

Can Memory Be Educated?

The last few years have seen a marked change in the way education (psychologists) look at memory. Traditionally, memory has been thought of as a single entity, usually the result of an original experience. Today researchers compare human memory to the computer memory. They maintain it can be broken down into a number of components. Human memory has a working memory which is connected to long-term memory where it is classified and stored in such a way so it can later be retrieved (Baddeley, 1976)

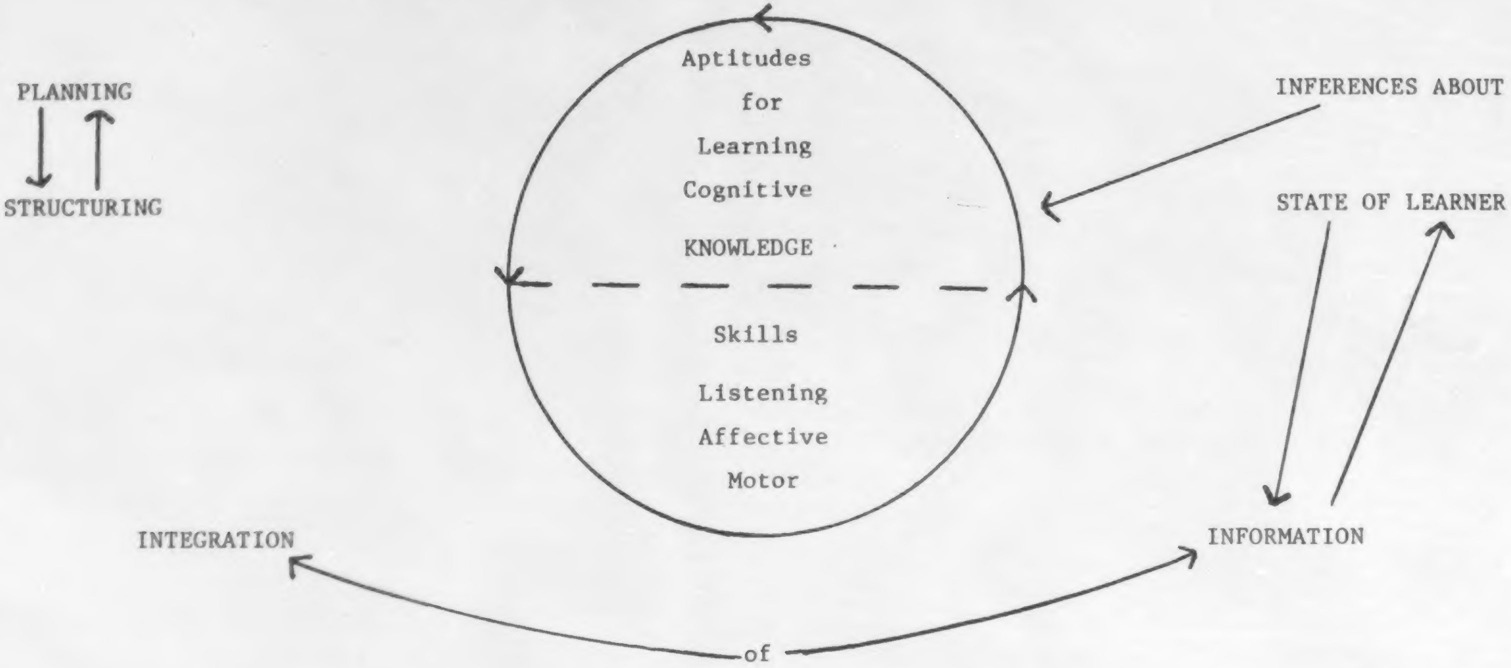
Carrying the analogy further, just as computers distinguish between hardware and software so we can compare the inbuilt capacity of our working memory to the hardware and the strategies we use to remember to the software.

Psychologists have identified a number of strategies which lead to remembering. The first is rehearsal-simply repeating the material over and over again. At the other extreme is the use of organizational strategies.

New information is related to an existing concept and stored as an extension of an idea. (Morris 1977) Retrieval of the relevant material at a later time is by various means in terms of their common category membership. (Bjork, 1978)

Mayer, R. E. & Greeo, J. G. Structures Differences between learning outcomes produced by differenct instructional methods. Journal of Educational Psychology, 1972, 63, 165-173.

Ringel, B. A. & Springer, C. J. On Knowing How well one is remembering: The persistence of strategy use during transfer. Journal of Experimental Child Psychology, 1980. 29 (2) 322-333.


PLANNING
STRUCTURING
Aptitudes
for
Learning
Cognitive
KNOWLEDGE
Skills
Listening
Affective
Motor
INFERENCES ABOUT
STATE OF LEARNER
INFORMATION
INTEGRATION
of

Teaching - answering questions is structured and should
consists of sequence of Listening
Behavioral and Cognitive
Experiences
Involving the instructor
and the
Learner
Based on Listening

HELPING PARAPROFESSIONALS TO LEARN

How can we devise instructional routines to help the paraprofessional learn to learn? The emphasis should be on improving the paraprofessional's self-control and self-awareness of his own learning processes.

Historically strategies have been developed for promoting recall of information. But rote recall, although valuable, is not the only desirable outcome of learning activities. It is important for the learner to understand the significance of learning strategies.

The most commonly studied strategies of rote recall are rehearsal, categorization and elaboration. Rehearsal, repetition of items to ensure their memorability, is an activity that can be carried out on material that has no inherent meaning, such as a call number. Categorization is a strategy that used familiar material as a design for learning. Elaboration is a strategy in which the learner imposes meaning on material to make it more comprehensible.

The instructor should strive to make the paraprofessional more aware of the active nature of learning and the importance of employing problem-solving to enhance understanding. The learner should attempt to tie new informational content into any prior knowledge possessed. He/she should consider the aim of the learning activity; the purpose of his/her endeavors, and be aware that different desired outcomes require defferent learning activities. Blind training techniques should be avoided and a serious attempt at informed self-control training, that-is to provide novice learners with the information necessary for them to design effective plans of their own.

For more information:

Bransford, J. D. Human Cognition: Learning, Understanding and Remembering. Belmont, Calif.: Wadsworth, 1979.

Bransford, J. D., Stein, B. S., Shelton, T. S. & Owings, R. A. Cognition and adaptation: The importance of learning to learn. Cognition, social behavior and the environment. Hillsdale, N. J.: Lawrence Erlbaum, 1980.

Jenkins, J. J. Four points to remember: A tetrahedral model and memory experiments. Levels and Processing in Human Memory. Hillsdale, N. J.: Lawrence Erlbaum, 1979.

PLANNING FOR INSTRUCTION

Instruction is a plan for accelerating learning. It serves as a blueprint and should have the following components:

1. Objectives - assessment
2. Content
3. Instructional procedures - task analysis
4. Learning activities - skill sequencing
5. Learning resources (equipment and materials)
6. Evaluation as feedback.

Objectives:

The objectives identify what is to be learned. They give directions for the procedures to be followed for reaching the stated goals. They assist the librarian and the prarprofessional in making instructional decisions by focusing on the central purpose. Usually the objectives are general and specific.

Content:

Learning is concerned with acquiring knowledge and understanding (cognitive learning), with feeling and attitudes (affective learning), and with manipulative skills (psychomotor learning). All three types should be used.

Whatever we know, feel or manipulate involves content. The content should reflect both the general and specific goals (objectives) The scope of the program determines how much content is needed. The interest and abilities of the paraprofessional may influence as to what depth the area is studied.

Instructional Procedures:

The third part of the design for planning for instruction involves the procedures the librarian and the paraprofessionals follow in carrying out instructions. Procedures are in essence the librarians activities. After identifying the instructional activities they must be ordered sequentially. The instructional procedures are determined by the general and specific objectives. Some questions to help you with this area are:

What type of learning environment is envisioned?

What modes of presentation will be used?

- Lecture?
- Discussion?
- Self-instruction (LAP'S) - modules
- Computer
- Audiovisual
- Others - microteaching

Learning Activities

The core of the instruction is the learning activity. It is through these activities that learning takes place. They should be interesting, challenging and related to the objectives. Given a choice in the number/kind,will involve the paraprofessional in determining their need. The learning activities should represent visual, auditory, and tactile. Whenever possible keep in mind the recent study on the brain: The right brain has the creativity to bridge gaps and make intuitive break throughs, but it cannot test that intuition or communicate it to other people. The left brain has access to the intuitions of the right brain and can test them and convert them to the language. If education can redirect its efforts toward a balance between verbal and intuitive thinking it will give us a world where people can experience both the intellectual and the feeling sides of life.

Learning Resources, Equipment, and Materials

Selection of instructional materials and equipment is dependent upon the goals or objectives.

In order to approach instruction in a systematice manner, a number of factors must be considered. These include the model used, the paraprofessional (or learner) learning skills, styles, preferences and learning activities.

Instructional Models

The model used has a great effect on how much and how well the paraprofessional is going to learn. Factors to be considered in choosing the model to use for instruction are: course content

time

proficiency level

The model that seems appropriate for consideration is one that allows variation in content, time and the proficiency is fixed. The course or instruction will be geared to the needs and abilities of the paraprofessional to be instructed in the reference department.

Individual Learning Skills, Styles and Preferences

It is known that there are individual differences in intelligence that will affect learning. Research has indicated that student preferences will also have an effect on learning and must be taken into consideration in an individualized instruction system.

Learning Activities

Four classifications of learning activities as outlined by Pophane:

1. Reading
2. Writing
3. Listening, speaking, discussing
4. Performing and observing

The resources to be used in each classification are:

1. Reading Learning Activity resources.
   A. Textbooks
   B. Workbooks
   C. Programmed Materials
   D. Learning activity packets (modules)
   E. Computer printouts
   F. Transparencies
2. Writing Learning Activity Resources
   A. Reports
   B. Daily assignments
   C. Workbook exercises
   D. Learning activity packets (Modules)
   E. Quizzes
3. Listening, Speaking, Discussion, Learning Activity resources
   A. Lectures
   B. Brainstorming
   C. Discussions
   D. Oral Puzzles
   E. Oral reports
4. Performing and Observing Learning Activity Resources
   A. Demonstrations
   B. Role playing (for interviewing)
   C. Games (for finding materials, treasure hunt, etc.)
   D. Simulations (Bibliographies etc.)
   E. Computers
   F. Work related experiences (references activities)

Having considered the preceding models, individual learning skills, styles and preferences and the learning activity resources that go to support an instructional model, the educator (in this case the librarian) must consider how to determine the format.

PERFORMANCE BASED INSTRUCTIONAL SYSTEM

One instructional format is the competency based or performance based instructional system. The system includes:

1. Identification of competencies
   A. Based on the needs of the learner
   B. Based on the needs of the Library
   C. Based on the constraints of the teaching/learning environment
2. Determine Instructional Objectives
   A. Target objectives
   B. Objectives in the following domains:
      Cognitive
      Affective
      Psycho-motor
3. Select Instructional Model that
   A. Considers educational environments
   B. Considers content, time, proficiency factors
4. Selects learning activities that
   A. Are related to the learners skills, styles, preferences
   B. Will achieve the stated objectives/goals and competencies
   C. will include:
      Reading
      Writing
      Listening
      Speaking and discussing
      Performance
      Observing

5. Select Teaching Strategies
    - A. that consider the teaching/learning environment
    - B. that best meet the needs of all involved
    - C. that provides options for evolving appropriate student/learner outcomes
6. Plan Evaluation System
7. Develop Remediation Procedures
    - A. Consider alternative learning and teaching strategies
    - B. Place more emphasis on skills, styles, preferences of learner

COSTS AND BENEFITS OF THE SYSTEM

Each step of the competency based instructional system will take time. In the case of developing a variety of learner's activities there will be considerable time expended. This of course applies to the initial implementing of the program. Updating or revising the activities will be an ongoing process that never ceases if the programs are to be current. The areas that will take the most time from the standpoint of being mentally challenging will be the evaluation system and the remediation procedures, neither can be haphazardly developed. Both are extremely important if the system is to function at maximum efficiency and produce reference personnel who have truly met the instructional objectives and competencies.

From the standpoint of benefits of this type of instructional system being proposed for the training of the paraprofessional for the reference department, it seems clear it will be beneficial to all concerned. This system will provide the instructor (professional librarian) with a strong basis for conducting the learning activities. It will also provide the paraprofessional with an unique program planned for helping students and other library users in the Education Library. It appears that benefits will outweigh cost over a period of time.

GETTING READY TO TEACH

NECESSITY FOR ASSESSMENT

Before one can begin to teach, it is essential that the learner's present level of performance be determined. Assessment may be defined as the "collection of information for the purpose of making decisions: the kind of information gathered depends upon the decisions to be made." Assessment may be viewed as determining what content to teach and how best to deliver that content to the training of the paraprofessional.

METHOD OF ASSESSMENT

Frequently the professional librarian may utilize one or more of the following methods of assessment to determine where to begin the on-the-job training.

1. Standardized formal assessment such as A Library Orientation Test for College Freshmen. Prepared by Ethel M. Feagley and others.
2. Informal diagnostic tests
3. Systematic observation.
4. Informal conferences.

WRITING INSTRUCTIONAL OBJECTIVES

Instructional objectives allow the librarian to identify and measure the paraprofessional's behavior or performance. The educational needs of the learner are translated into instructional objectives by specifying content the paraprofessional must acquire. Instructional objectives are always learner centered and reference to the teaching method or activity is avoided.

Meaningfully stated instructional objectives are those that succeed in communicating to the learner the instructional intent. Moyer suggested three steps:

1. Terminal behavior is identified by name.
2. Conditions are described for reaching the described behaviour.
3. Describe the acceptable level of performance.

TASK ANALYSIS

Task analysis has been defined as a problem-solving strategy for determining what to teach and for developing the proper sequence that will enhance the learner's mastery of the objective. Task analysis allows the instructor to break each instructional skill into small teaching components which follow an order from the first to the final step until the objectives are reached.

Williams cites seven steps that are generally followed in developing a task analysis:

1. Specify the objectives
2. Review instructionally relevant resources.
3. Develop and sequence the component skill by
   a. Doing it yourself
   b. Observing another librarian doing the task
4. Eliminate unnecessary component skills
5. Eliminate redundant skills to reduce instructional time. (flow charts are helpful here)
6. Determin prerequisite skills that are needed for this task.
7. Monitoring performance and revision is the final step in the task analysis process.

The task analysis a teacher develops are never considered finished products. Task analyses are always subject to change. Whenever progress is not being made or new instructional materials are developed.

DEVELOPMENT OF INSTRUCTION

The development of a curricula for instructing the reference assistant is not a simple process. It takes careful planning, flexibility, forseight and cooperation.

FACTORS TO BE CONSIDERED

The first step begins with an analysis of the external and internal environmental factors directly affecting the reference department. Some of the factors that should be considered are:

the curriculum of the university
the population to be serviced and their needs.

This population may include undergraduates, graduate students, faculty, institutional administrators and staff, community residents such as teachers, businessmen, city officials and others. After identification of the groups then the reference department may try to assess their needs in the light of the resources of the library.

DEVELOPMENT OF PROGRAM

The reference department require clearly defined goals and objectives since people need objectives to help design a course of action and evaluation. The next step is, then, the development of programs and activities carefully designed to implement the goals and objectives. Evaluation of Programs should be on a continuing basis, because there is a dange that programs continue simply because they have been started.

The development of skills, attitudes and storage of information must be based on prior knowledge and experiences.

STATING THE PROBLEM

The most important single factor influencing learning is what the learner already knows. (Ausubel, David. Educational psychology: a cognitive view. 2nd Ed.

Holt, Rinehart and Winston, 1978). A useful starting point is to place skills under the following questions:

What do I need to do?

What do I need to know?

How do I find what I need to know?

What shall I use to find what I need to know?

How do I arrange the information I find?

How will I remember how to find this information again?

This range of questions begins with the initial problem formulation, through the tracing and interrogation of sources to recording and storing, reshaping and communicating the information, and on to evaluation and utilization of feedback. This activity involves many skills: understanding, knowing, doing, thinking, imagining, expressing communication, --- etc.

Information skills are the means or pathway to wider goals. They are the bridging skills between the reference person and the source of information. Through formal information,sources-books, audiovisual materials, and artifacts are largely accessible according to certain rules or procedures such as manipulating a subject index or skimming and scanning. Information is sought for a variety of purposes. Ultimately one must develop a critical sense of the appropriateness of the various sources for information retrieval. At present there seems to be no generally accepted definition to the term "information".

EVALUATION

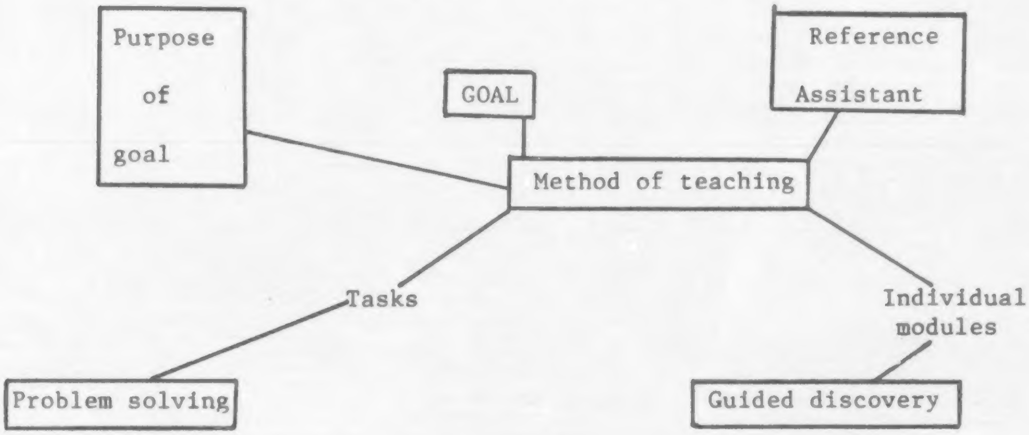
There appears to be no commonly defined purposes for conducting evaluations.

CHOOSING THE TEACHING METHOD

AIM

To develop a plan for instructing the reference assistant which will include:

1. Statement of purpose.
2. Identification of student's needs.
3. Description of materials, facilities
4. Choosing a teaching method compatible with the objectives.


Purpose of goal
GOAL
Reference Assistant
Method of teaching
Tasks
Individual modules
Problem solving
Guided discovery

To determine the differences in the teaching methods, one need only determine who has made the decisions. Does the librarian make all the decision or does the learner participate in what needs to be accomplished?

LEARNING STYLE

Research in the area of learning style is becoming quite vast. (Fischer, Barbara, Hunt, David, Dunn Rita). The learning style of each learner must be considered and many teaching methods must be used. The Librarian must decide which method or methods are available and which best match the purpose or objective.Of course the method chosen must also match the teacher's (librarian's) style.

WHAT TYPE OF TRAINING?

The type of reference offered to the reference assistant will reflect the needs of the clientel. The reference department must -e aware of the students assignments that involve special use of library materials as well as maintain a complete file of course outlines, reading lists and assignment sheets. When formulating a proposed curriculum for training the support staff. The type of user education supported by the library is an important element for training such as orientation and bibliographical instruction.

BACKGROUND

Orientation is primarily concerned with ways of introducing the user to the general techniques of library usage, services available, and the organization of the library. Bibliographical instruction is the introduction of the user to the information resources that are available in a particular subject area and the techniques of using these resources. There is a school of thought which considers that orientation is not only concerned with the cognitive objectives aimed at introducing factual information but also with affective objectives such as the right kind of atmosphere between the library staff and user presenting an image of the library as a helpful, friendly place. The end product of the orientation process, according to Jolley, should be a student that is confident the library staff is competent and willing to help him and he is willing to seek this help. This implies that the library must provide adequate resources for his needs. However the informal teaching of individual students in response to a specific request helping the students clarify their problems when the need arises, is still the most useful, according to a recent survey. Libraries may have a lot to learn from the supermarket. There the products are clearly displayed, the layout is supported by adequate guiding, where the staff provides courteous attention and generally appear helpful and informed. Users can browse and are helped to help themselves in finding what they require.

Many methods of guiding have been used in libraries. Pollet advises that signs should be used, and notices should be brief. Library guides, at a point of need, are helpful but should not take the place of personal interaction with the reference staff. These require careful design and planning to maximize their impact. Professional expertise should be used for the design and production of the guides. Printed material, properly designed and produced, will be noticed and will shape attitudes toward the library which may label them as inefficient.

What are the necessary qualities, qualifications and attitudes for those engaged in user education? There are two schools of thought about qualities and qualifications required. One suggests the priority should be good (academic) (subject) qualifications. The other school of thought suggests that personal qualities are more important than qualifications, though the latter cannot be ignored. Desirable personal qualities are thought to be enthusiasm, an ability to communicate clearly and effectively, public relations ability, friendliness, patience and maturity. The reference assistant should be self-motivated to want to do reference work, not because he has to. They should want, not only to answer questions but to show the user how to answer questions for themselves. Line compares the attitude of the reference staff with that of a driving instructor. Information handling, like learning to drive a car, is a skill that has to be developed by learning it beside someone who is better at it than you, but is not going to be patronising about it. Creation of positive attitudes will lead to an imporved image of the reference department. Positive attitudes and positive approaches towards users and users education need creating. Regular personal contact is necessary for an effective user program.

Approachability is important. Counselling skills and communication skills will help to achieve this desired trait.

Education is regarded as a provess which changes the learners. Every interaction is based on the conviction of this possibility (Bloom, 1971).

The planning of a program usually begins with a statement of goals and objectives. Goals express general long term purpose, objectives are short term aims.

CURRICULUM

There are several different conceptions of curriculum which appear in the literature. Eisner and Vallance (1974) both identified five:

- Development of the cognitive processes
- Technology of curriculum
- Personal development
- Social reconstruction
- Academic rationalism

Emphasis is placed on the basic abilities involved in thinking which can be used in future learning in the development of the cognitive processes.

Content or what is used to think about in these processes is less important than the actual processes. The idea is to help the student develop intellectual autonomy.

The technology of curriculum is concerned with how to develop products and methods which will help the students learn effectively and efficiently whatever has been decided they ought to learn.

To those who see curriculum as personal development, the emphasis is to assist all students in becoming self-actualized and autonomous persons. Content is important to the extent that it helps students develop personalized curriculum.

Curriculum as social reconstruction emphasizes social goals. The betterment of society. Curricula should help bridge the gap between the way society is now and the way it ought to be.

The academic rationalists view curriculum as the attempt to enlighten students in the best ideas and objects which have been produced in the past. These ideas are to be found primarily in the organized disciplines of knowledge and the disciplines are used as the basis for the curricular design.

It should be emplasized that there is variation in the positions of scholars within each group. Different subgroups can be identified within the larger groups.

Tyler raises four questions which must be answered when planning the curriculum:

1. What are the educational purposes?
2. What educational experiences can be provided that will attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?

(Tyler, 1949, 1, 2)

TYPES OF INSTRUCTION

An examination of the literature as to the type of instruction,can be applied to instruction for library reference assistants has resulted in the formation of the following categories:

Delphi Technique
Workshops
Conferences
Symposia
Self-instructional procedures
Multi-media
Computer assisted Instructional programs

Delphi Technique

The Delphi Technique is an innovative method based on a series of suggestions/questions involving a panel of experts communicating by mail. The Delphi Technique has been successfully used for improving curriculum in various fields. Malone (1973) used this method to provide recommendation for dental curricula revision. It has been used in other areas, including the library.

The results of the Waldron study imply that the Delphi process may have greatest value in teaching people to think in a more complex way and as a planning tool without the expense of transporting experts to one particular place, though time involved in mail communicating may be weighted against the cost factor.

THE SYSTEMS APPROACH

The application of a system approach involves systematic and detailed analysis of the major components: course content, instructional strategies and resources. Identification of the needs of the students, the development of educational objectives, the evaluation of available resources.

WORKSHOPS

Workshops, conferences, Penta-1974 symposium designed for instructional improvements have a tendency to be of short duration. They are usually regional or national in scope while focusing on a specific aspect of improvement relating to instruction or reference.

OTHERS:

Multi-Media Instructional Aids

Slide-tape sequences, filmstrips and loops, videotapes, single concept films, microfiche and microfilm are utilized and may or may not be combined with computer assisted instruction.

Self-Instructional Procedures

The great diversity among students is a major reason why attention should be given to individualizing learning experiences and adjusting them as much as possible to each student. (Wilson and Gaff, 1975.)

This type of model assumes that students learn at different rates: the learner is in control of his learning rate and receives frequent feedback on his performance on material which has been broken down into smaller segments that are in one way or another cumulative. (Schein, 1972)

LAPS, programmed instruction can be used to increase teaching efficiency and improve learning and cognitive skills. Materials are presented through units which incorporate a conceptual theme strategy as well as problem solving activities. Some pertinent activities are simulated utilizing a branching technique for additional information or explanation.

Computer Assisted Instructional Programs

Although there seems to be widespread interest in computer assisted instruction in teaching library use, there are few libraries with active and successful programs (Project LOEX 1977) In a recent survey by LOEX it was noted "many institutions recognize the potential of computer assisted instruction in academic library instruction but on the whole CAI seems to be a victim of universal monetary cutbacks in libraries.

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FOUR
TO
GO

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FOUR TO GO

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1

HOW TO FUNCTION WELL ON THE JOB

Some attributes that will aid the paraprofessional to function well on the job are:

Has an attractive appearance and is in good health.

Has a professional manner-is punctual.

Is friendly and cheerful.

Is responsible and conscientious.

Is cooperative, sincere and has a positive approach.

Is happy about her work.

Is willing to accept criticism.

Willing to follow directions.

Willing to learn.

Is aware of her own strengths and weaknesses.

Is familiar with the goals and objectives of the library.

Understands the rules and procedures.

Understands the multiple roles and responsiblities of other staff member.

Knows the organizational structure and channels of communication.

WHAT IS REFERENCE SERVICE

Each individual has the right to the uncensored access to information. have an obligation to make information available to any individual. The informational needs of the library user are not to be taken lightly. Providing answers is a major responsibility using all appropriate resources to provide an accurate and adequate answer. On no account should a question be left unanswered, if the resources are inadequate the searcher should be referred to another source.

The privacy and confidences of each user must be preserved. In meeting the needs of the user the reference assistant should be aware of and follow the recognized statements of the right to information such as the Library Bill of Rights, the ALA Freedom to Read Statement and others.

Reference service consists of familiarizing students with the physical facilities services and materials in the library: card catalog, call number, filing rules, types of cards and information given, classification systems, circulation procedures, interlibrary loan policies, equipment and materials available--how to use the indexes or abstracts, and specialized materials.

WHAT IS REFERENCE SERVICE?

A. Direct
  1. To give personal assistance

    a. to library patrons
    b. in the search for information

  2. Give instructions and guidance

    a. in use of the library tools

      1. card catalogue
      2. bibliographies
      3. reference works

    (Give direction rather than providing the information itself)

  3. Provides information
    (by providing an end product in terms of the information sought by the library user)

    e.g. Finding specific facts
      Interpreting material found
      Abstracting
      Translating (limited)

B. Indirect
  1. Preparation of:

    a. Bibliographies
    b. Book lists
    c. Table of contents
    d. Aids which help student use right tool for his inquiry
    e. Aids which help explain the reference collection
    f. Library manual

  2. Cooperation of reference department with technical services (Mutual understanding regarding cataloguing rules)

  3. Organization of reference:

    a. Ordering books - pamphlets, etc.
    b. Bindery preparation
    c. Clipping newspapers - Periodicals
    d. Weeding files
    e. Photocopying
    f. Interlibrary Loans
    g. Supervising and training personnel
    h. Arranging equipment
    i. Posting signs and directions
    j. Preparing records, statistics, reports, etc.
    k. Formulating and publicizing reference policies

REFERENCE QUESTIONS

Directional questions

Does not require the use of library resources in answering the question.

Ready reference

Involves use of one tool.

Example: Almanac

or

Card Catalogue in order to answer the question.

Search

Need to consult two or more information sources.

Example: use all--Card Catalogue

Bibliographies

Indexes to answer the question.

TYPE OF HELP STUDENTS SEEK

Where to find Material

Aid in finding material on a certain subject
Locate definite information
Tell location of books or other material
Find books or other material on shelves
Hunt lost or misplaced books
Find pictures, maps, clippings
Inter-library loan
General

What to Use - help given as:

Suggestion of material
Outline, or course syllabus
Bibliography
Definite reference or assignment

How to Use

Instruction in use of library
Aid with bibliographic tools
Help with reference books
Assistance in bibliography-making

Miscellaneous

Supply books and periodicals
Give information; answer questions
Place books on reserve, and call in books
Display new books
Bulletin board
Keep order

DIFFICULTIES FOUND IN USING LIBRARY

A. Book and Periodical Collection

1. Insufficient books
2. Insufficient periodicals - or in circulation
3. Desired material in use
4. Desired material at bindery
5. Desired material missing
6. Desired material not owned by library - suggest ILL
7. Material not up-to-date

B. Student's Lack of Knowledge and Skill

1. What tools or sources to use to find right material
2. How to use catalog, indexes, or reference books
3. Where to locate materials in library
4. General

C. Routine: Rules and Regulations

1. Reserve and reference books
    a. Hard to get; not enough copies; all want same
    b. Assigned books not on reserve
    c. Important books on reserve and cannot go out
    d. Time limit too short
    e. Not returned in reasonable time

REFERENCE MATERIAL

The materials included in a reference collection depends upon:

1. Needs usually determined by the recurrence of the same questions.
2. Usefulness in answering the reference questions.
3. Depth of coverage.
4. Format.
5. Frequency of use.

Generally, a reference work is not intended to be read at length but to locate information. Permission is needed to circulate a reference book. Some of the most useful for answering ready reference questions are:

Bibliographies or bibliographic guides
Dictionaries
Directories
Encyclopedias
Gazeeteers and Atlases
Handbooks and Manuals
Indexes and Abstracts
Biographical sources
Yearbooks and Almanacs
Theses
Topical papers
Conference Proceedings
Government publications
Translations
Digests
Anthologies
Research reports
Style manuals
Plot summaries

Most libraries use the Decimal classification (Dewey) or Library of Congress Classification. In order to give the best service to patrons, the paraprofessional should be familiar with both systems. The classification system is the key to the location of the materials in the library. The better one knows the system the better the reference work. As the collection grows the classification the books on similiar subjects may be separated so it is still important to use the subject catalogue. Both systems are used in the library.

LIBRARY SERVICES IN COLLEGE OF EDUCATION, UNIVERSITY OF REGINA

I. School Library. Bill of Rights

II. School Standards. Canadian and American

III. Education Library Program:
1. Objectives
2. Library staff

IV. Selection of materials:
1. Kinds of materials
2. Book selection policy
3. Consideration file
4. Tools for book selection

V. Budget

VI. Requisitioning of materials:
1. Book orders
2. Orders for periodicals
3. Supply requisition

VII. Organization of the Library Collection:
1. Using printed catalog cards
2. Central processing
3. Mechanical processing
4. Classification Procedures
5. Cataloging procedures
6. Purposes of the shelf list
7. Card catalog
8. Rules for filing catalog cards
9. Non-book materials
   a. V.F. and P.F.
   b. Periodicals
   c. Kits
   d. Film strips
   e. Records
   f. Tests

VIII. Use of the Library
1. Borrowing
2. Fines

IX. Library Instruction
1. Training library assistants
2. Class instruction or orientation
3. Scope for teaching library skills
4. Methods of teaching library usage
   a. Questions
   b. Case study
   c. Problem centered
   d. Flow chart
   e. Photo-situations

X. Maintaining the Collection
1. Daily inspection
2. Mending - rebinding, etc.
3. Discarding - V.F.

XI. Records and Reports:
    1. Purpose
    2. Kinds -
        a. Statistical
            i. Reference questions
            ii. Circulation
        b. Classification

Reference Questions

Appendixes

1. Job Analysis
2. Library Terms
3. Printed forms - **staff ratings etc.**
4. Basic reference collection
5. Basic professional tools
6. Information retrieval
7. Hints to new librarians or assistants

GOALS-OBJECTIVES

Goals

1. To acquire facility to work easily and familiarly with books.
2. To provide a basis for continuation of self-education.
3. To develop initiative and independence.
4. To learn how to find books on some special subject.
5. To prepare surveys from world wide periodicals of some subject on which no book is sufficiently up to date.
6. To be able to find data as a basis for planning.
7. To develop ability to judge the comparative merits of books.
8. To acquire knowledge, skill in using it, and experience in where to find it.

- Excerpts from 1942 Aslib convention

These goals are still relevant today. Some additional goals that could be formulated:

1. To understand the link between the subjects taught and the resources (collection) of the library.
2. To make the maximum use of the resources.
3. To develope a confidence in the use of the library tools and ability to use them.
4. To be able to assess the needs of students and faculty.
5. Experience a sense of enjoyment in information searching.

Specific objectives

1. Have the ability to locate:

   Handbooks

   Encyclopedias

   Bibliographic tools

Periodicals through indexes

Dictionaries.

2. Recognize the different types of information search:

Current

Fact or data searches

Browsing in subject areas

3. Know search strategy:

Definition of search topic

Limitation of topic

Tools available for retrieval of the information such as:

Card catalog

Indexes

Abstracts

Bibliographies etc.

4. Understands how to help the student relate new facts to existing knowledge.

5. Keep student informed on progress being made.

6. Evaluation of method used.

DECISION MAKING

One of the most persistent myths is the idea that a good decision maker is an instant decision maker. There is a tendency to equate soundness of decision with the length of time taken to respond. Some people can make decisions rapidly, and some prolong the matter. It is desirable for the reference staff to be able to make decisions quickly. Decision making should be a rational process based on reason, not an emotional reaction. Sound decisions, are the result of a sound process.

The decision-making process consits of the following steps:

1. Informal problem identification
2. Information gathering
3. Problem identification
4. Identification of alternative for action
5. Projecting the alternataives
6. Decision selection
7. Evaluation of decision.

This decision-making process provides a systematic method for looking at problems. Its pay off is in better decisions and solutions.

Some of the questions we ask are:

1. Did I have enough information, the right information? What did I ignore? Where could I have found more information? Did I gather more information than I needed?
2. How well did I define the problem?
3. Were there alternatives I did not see?
4. How well did I project the alternatives?

TRAINING THE PARAPROFESSIONAL

Aim: To create planned opportunities in the various areas (subject) for the introduation, exercise and development of a wide range of information skills.

The central principle which guides reference work is that the skills needed to find and use information must be introduced and reinforced within the normal day-to-day activities. Skills that are developed relate not only to subject content but to learned outcomes -- not simply regurgitation packages of information.

Information Skills

The skills for finding out through study and investigation are primarily thinking or cognitive skills. The successful investigator is able to engage in a process of thinking and it is this process that needs to be developed rather than a series of locational skills

The mental process of classifying knowledge is different in each but the purposes are similiar: storage and retrieval from the brain, similiar to a computer allows the store of knowledge to be ordered in many ways. The concept of classification is the desired sub-sets of knowledge and the ability to retrieve information. Even when armed with a clear definition of information needs, purposes and search terms, successful reference personnel employ a variety of strategies and terms before they are satisfied that most of the relevant material has been identified.

Skills

More important than knowing how to locate material in a library is an understanding of project work such as preparation of bibliography, course work, audio-visual learning packages, literature searching, current awareness services; outside sources and services should be considered--sources of information, finding tools, basic information retrieval techniques--reference sources forum for questions--discussion necessary for the librarian to develop syllabus, (course outline, lecture--teaching aids.

CAl programs have many advantages - can work at own pace.
actively participate in the learning process and receive direct feedback as to the progress that they are making.
-but the learner works as an isolated individuals--little interaction with the teacher. This may appeal to some--but others may prefer the interaction with the teacher.

Factors affecting the learning process which must be considered when choosing the teaching method are important and must be recognized by the professional librarian when planning for instruction of the non-professional. Education is a process which changes the learners. There are four main factors which must be considered: motivation, activity, understanding, feedback.

Choice of teaching methods and media, then, depends on the learning-teaching situation, the subject material, the type of learner and the instructor. The methods and media for library instruction for the reference assistant should preferably involve active participation. Opportunities must be provided or simulated to relate new facts to existing knowledge. Provision should be made as to their progress during active problem orientated work.

In practice a combination of teaching methods and media can be expected to provide the best basis for training of the reference assistant. Different methods can be used for different parts of the program.

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SPECIFIC REQUIREMENTS

1. To locate information needed to order library materials called duplicated searching.
2. To understand how library materials are ordered.
3. To understand how to use subject headings to describe and find specific information.
4. To understand how to use the Dewey Decimal and Library of Congress classification schemes in order to locate items and where the systems are used.
5. To use and maintain an authority file for consistency in assigning subject headings for the vertical and picture file and lesson aids.
6. To judge if library materials need rebinding.
7. To understand how to use and instruct others in the proper use of library catalogues in order to identify, locate and retrieve library materials.
8. To assemble bibliographies, lists of materials and information sources in order to meet an expressed user's needs under professional guidance.
9. To instruct others in the proper use of various filing systems (e.g. alphabetic, word by word, classified, chronological) in order to locate information.
10. To locate and retrieve specific information, utilizing various forms of information and resources such as books, periodicals, microforms, government documents, curriculum guides and others.
11. To use and instruct others in the use of library reference tools including: dictionaries, atlases, almanacs, biographies, directories, encyclopedias, indexes, bibliographies, catalogues and others.
12. When appropriate, to recognize the possible lack of currency in information and advise the user.
13. To understand how to prepare, maintain and use special purpose files--vertical files, picture files, ready reference files in order to respond to reference requests.
14. To conduct a reference interview.
15. To recognize problems with respect to copyright restrictions.
16. Other duties that may be assigned.

Some things expected of the non-professional:

1. Be sure you want to help other people.
2. Be convinced your services are important.
3. Be loyal, offer suggestions but don't "knock".
4. Accept the rules. Don't criticize what you don't understand. There may be a good reason.
5. Speak up. Ask about things you don't understand. Don't "coddle" your doubts and frustrations until they drive you away from the department, or turn you into a problem worker.
6. Be willing to learn. Training is essential to any job well done.
7. Keep on learning, know all you can about the reference mateirals and the courses of study.
8. Welcome supervision. You will do a better job and enjoy it more if you are are doing what is expected of you.
9. Be dependable. Your work is your bond. Do what you have agreed to do. Don't make promises you can't keep.
10. Be cooperative--be part of the team. The lone operator is pretty much out of place in today's complex society.

COMPUTER - A NEW TOOL

There is general consensus on which broad areas of knowledge, attitudes, and skills are most important. That is the importance of any particle of knowledge is in the eye of the beholder. Now the tendency is to develop techniques for transmitting knowledge as well as specialization in any particular area. None of these seem to be able to handle this explosion of knowledge so we really benefit from this knowledge.

There is a limited number of ways in which data can be acted upon. They can for example be:

1. Recorded
2. Stored
3. Processed
4. Retrieved
5. Evaluated

Technology has now intervened: few of the above operations remain the sole domain of the human. An increasing number are performed by machines. A computer can:

1. store information
2. Process it (transform as instructed)
3. Retrieve information on demand
4. Record it in some form.

Thus technology frees man to use his unique capabilities for decision making. The decision making process includes asking the following questions.

1. What is the problem to be solved
2. What information do I need?
3. In what ways should the data be processed?
4. How valid are the results?

A new tool is needed--the old ways of memorizing materials will not suffice. We need to know how to find the answer by our search strategy or inquiry This is the rational way to find answers that are suitable - learning how to learn by using LAPS.

FORMAT OF THE MANUAL FOR LAPS

Each area for training is written with a common format that contains:

1. A set of objectives
2. Learning materials and activities
3. A rationale
4. Mastery tests

1. Objectives The objectives, stated in terms of learner outcomes, specify the competency or competencies the reference staff will be expected to demonstrate. Whenever it is appropriate, the objectives will be arranged in a learning hierarchy, leading from relatively simple objectives to more complex ones. Emphasis will be on conceptual understanding and appreciation of specific skills related to specific knowledge, as related to performance and the application of the stated objectives.
2. Rationale. The rationale describes the purposes and importance of the objectives. Explains the importance of acquiring specific competencies. This aspect is important because it supplies the necessary maturation needed to spend the time and effort to acquire this particular competence and skill.
3. Reading materials and activities. Each objective has an accompanying list of reading materials pertaining to that objective, as well as activities. The nature of the reading materials and activities varies depending on the specific objective being considered.
4. Mastery tests. Mastery tests are provided with answer keys to enable assessment of the degree of achievement of the stated objectives. This technique

allows you to discover immediately whether the objectives have been met.

This format (objectives, rationale, learning activities and mastery tests) has been tested in teacher education programs. If used properly, this format increases the probability that a level of competency will be achieved.

Description of the Skills

In reference work the three basic elements are to plan, to implement and to evaluate. Each skill is important. The following skills are presented:

Plan - Planning
Implement - Interviewing skills
Presentation skills
Questioning
Interpersonal communications
Evaluate - Observation
Evaluation

1. Planning is perhaps the most important function since it involves gathering all possible background information such as course outlines, and reading lists to see what the possible needs of the library user will be.

USING A LEARNING ACTIVITY PACKAGE (LAPS)

Since its inception several years ago, LAP's have gained recognition as an effective means for individualizing instruction. It is paced to meet the needs of the individual learner. A LAP focuses on one skill,attitude, idea or concept.

Under the LAP program the student can decide his own pace and type of activity for meeting the stated objectives. The learner is able to determine his own progress while the instructor is the one who decides the content.

The philosophy of LAPs is based on the theory that sutdents will learn better if they know what is expected of them, if they are provided the means to achieve the educational objectives and if they are able to demonstrate their competence in the area.

All the LAP is is a step-by-step set of directions with choices designed to meet stated objectives. It is based on the mastery concept (Bruner) and that transfer of learning has taken place from instruction to application--the student has mastered the concept.

LAP should consist of the following area:

1. Front cover
2. Introduction to LAP
3. Behavioral objectives
4. Path Selection
5. Varied assignments
6. Text (with quiz)
7. Introduction to self-test
8. Self-test
9. Answer key to self-test

10. Evaluation of self-test
11. Performance Exam
12. Pre/Post test
13. Color and cartoons

Front Cover

This is the title page. The title should be a brief as possible but still describe the LAP content.

Introduction

This describes the rationale of the LAP. The importance of this concept to be mastered by the learner. Instructions: go on to the next page.

Behavioral Objectives

Objectives must be stated clearly. Behavior referes to any visible activity displayed by a learner. (Mager, 1967)
The objectives must be measurable. Tests are one method of assessing performance or mastery. Using clearly defined objectives provides the student a means to evaluate his/her own progress at any point. Objectives of a course differ from a course description. A course description does not explain what behavior will be accepted as adequate achievement.

The expected behavior must be identified, the conditions under which is to occur and a brief description of what will be considered acceptable.

Path Selection

Provision should be made for those who already know the material that is being presented, so various paths are available to choose.

Path 1 - gives the student an opportunity to take the self-test to see if he can skip the material

Path 2 - for the learner with no previous knowledge of the material.

Path 3 - provides for the learner to read portions but not all.

Varied Assignments

Path 2 will direct the learner to read the main materials of this LAP. This should consist of a wide variety of activities such as: reading (books, articles); using A.V. materials; completing a work sheet.

If the learner elects Path 3 he reads a selection of the listed references and then takes the self-test, found at the end of the section.

Text

This is the main part of the LAP. The information should be specific enough so the learner can achieve the stated objectives of the LAP.

The student may have two choices here:

To review or finish the assignments for further clarification

Or proceed to the Introduction to the Self-Test

A quick quiz can be inserted at various points to act as a check or review of important points or concepts.

Introduction to Self-Test

The learner feels confident and proceeds to take the self-test

OR

he is still confused about a point and selects another part that will help to clarify the confusion.

Self - Test

This is used by the learner to see if he has met the LAP objective. The self-test can be written, or performance type.

Answer Key to Self-Test

The student is able to grade his performance and evaluate his answers as to how he reached the stated objectives

OR

If he has not answered correctly he is directed to select alternative parths in order to meet the objectives.

RESEARCH STRATEGY

1. Formulate (as precisely as possible) a statement of the problem or the question you want to address.

2. Use a general encyclopedia to further define/refine/enlarge the scope of your topic. A general encyclopedia can also be helpful in assessing the ramifications of a topic which you might not have anticipated. List the aspects you want to investigate and those you want to exclude.

3. Determine the types of publications you think will provide you with the documentation you are seeking. (Books, periodical articles, etc.; see OTHER RESOURCES TO CONSIDER, below.)

4. Identify the type of reference source you should consult in order to find this documentation.

EXAMPLES OF TYPES OF REFERENCE SOURCES:

- Subject Encyclopedias
- Subject Dictionaries
- Subject Card Catalog
- Kujoth's Subject Guide to Periodical Indexes..., Harzfeld's Periodical Indexes in the Social Sciences..., or Owen's Abstracts and Indexes in Science... for appropriate periodical indexes to use.
- Ulrich's International Periodicals Directory to locate periodicals in subject fields, to find out in what index a periodical is indexed, and/or to find out if a periodical has an index of its own.
- Periodical Indexes and Abstracts
- Newspaper Indexes
- Bibliographies
- Indexes to Books
- Literary Sources (handbooks, indexes to criticism, concordances)
- Statistical Sources
- Almanacs and/or Yearbooks
- Directories, Handbooks and Manuals
- Book Catalogs of Other Libraries or Collections

OTHER RESOURCES TO CONSIDER:

- Government Documents (U. S. Federal, State, County and Municipal)
- United Nations Documents
- Government Documents from Foerign Countries
- Papers and Proceedings of Conferences and Associations and Societies
- Biographies
- Book Reviews
- Rare Books and Manuscripts
- Scientific and/or Medical Sources
- Business and/or Legal Sources
- Archival Material
- Dissertations and Theses
- Spoken Records and Tapes
- Interviews
- Speeches
- Exhibition Catalogs
- Atlases and Maps

For more specific guidelines see Gates, Jean Key. "The Undergraduate Research Paper." In Guide to the Use of Books and Libraries. 3d ed.

DECIDING THE APPROPRIATE SOURCE

1. What kind of information
    - a. Overview
    - b. Definition
    - c. Statistical
    - d. Brief Summary
    - e. Extensive coverage
    - f. Short Article

2. In what discipline does the question belong?
    - a. Education
    - b. Social sciences
    - c. Science
    - d. Psychology
    - e. Other

3. What factors affect the question?
    - a. Date - current - historical
    - b. Location
    - c. Economic conditions
    - d. Historical events

4. What kind of source is needed?
    - a. General dictionary for definitions
    - b. Subject dictionary for specialized terminolgy
    - c. An encyclopedia for overview or summary
    - d. Periodical article for current information
    - e. A Yearbook for statistics
    - f. Combination of the above or others

SUMMARY OF SEARCH STRATEGY

1. Know clearly what the questionmeans-- statistics, general information, the amount of information, current data, biographical, geographical etc. A little thought here can save time searching.

2. Whenever possible start with general works to get a survey and background a the topic. It may be useful to use selective bibliographies. Sometimes the topic may have to be narrowed. or defined.

3. Use the flow chart.

4. Sometimes the newest, and perhaps , the only material on a subject will be found in periodicals, newspapers, or pamphlets.

5. Decisions must sometimes be made if there is more than a minimal amount of material available. A relevance judjment has to be made as to how well it will answer the specific query.

6. The search strategy is similiar to formulating a hypothesis (careful analysis of the question) and then testing its validity through the search. If youn think the answer is in a certain reference book, look for it, and do not find it there , then you think of another and it is there-- then the hypothesis is correct.

7. The ability to carry on the search depends upon the searchers existing knowledge about the collection and the question and on the changes in the knowledge as he proceeds.

8. Depend on no one's prior search for accuracy ahd completeness.

9. Remember special indexes.

10. Keep a list of where you have looked.

11. When to give up the search? No is never the answer. Refer the client to another source. Never say nothing can be found.

INTERVIEWING

Prior to becoming available for reference desk duty, the reference staff, experienced or unexperienced, should examine all available information such as course outlines, reading lists,exams (if obtainable) essay topics, special assignments, consultations with the professors regarding their courses, subject headings that could be useful, areas where materials on a particular subject can be found, of course, it goes without saying the reference staff on duty should be familiar with the Indexes, ERIC, card catalog, material on micro, and educational reference books such as dictionaries, encyclopedias, directories, curriculum materials which includes text books.

When approached, greet the library user warmly. Introduce yourself so that he will be able to use your name.

Summarize the need or problem and get agreement from the one that is seeking a solution to his problem.

If more than one solution is possible, deal with one solution at a time. i.e. if he wants current information on a topic--usually the first place to try are the periodicals so use the Indexes. However, some books are recent, so the card catalog could be consulted, too. Explain the solution in detail, i.e. how to maximize the use of each tool. Get agreement on how well the solution meets his criteria or problem.

Always summarize what has been discussed in the interview to be sure the solution is satisfactory.

Criteria are present in most of our decisions, especially between two choices, even if we never formalize them.

STRATEGIES OF PATHWAYS

Interview and Search

In the initial interview the question is analyzed and clarified as to the type of questions, the scope, the amount and level of material needed.

The first strategy to follow will depend upon the question. In the majority of ready-reference questions a source (direct method) usually comes to mind. The path would then consist of consulting a specific source to find the answer.

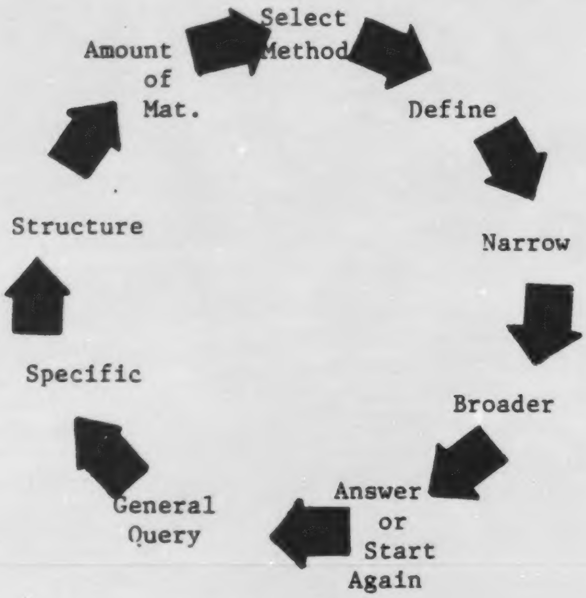
Sometimes the search pathways are not this simple, especially if this particular reference book failed to provide the desired answer. Other avenues may involve using bibliographies, indexes, card catalogue as an indirect method which would then help to find a source to answer the questions.

What goes on in the search process should be within the guidelines of the reference department. If the service is that of helping the user find citations and possible sources, the reference staff's search is really directional. The user will be advised to search a specific index or reference book or to use a specific subject heading for the search in the card catalogue--if however material is collected this should be done by the staff.

Sometimes the search pathway involves narrowing the topic; defining the terms; understanding the concept or finding more appropriate terms for the project. Of course during this process communication is maintained between the user and the reference person. If nothing can be found, a decision must be made to try new avenues. Keep in mind that there are three distinctive types of questions: ready reference; search and research.

The simple ready-reference or factual question may require no more than an automatic reply for the correct source. It is little more than relating a question to a source.

The specific search and research questions demand that more sources be consulted, thus requiring more time and expertise.


Select Method
Define
Narrow
Broader
Answer or Start Again
General Query
Specific
Structure
Amount of Mat.

A Brief outline of stages in the informational interview

Some examples of direct and indirect sources.

Direct Sources:

1. Contemporary Authors. Detroit: Gale
2. Encyclopedia Americana. New York: Americana Corp.
3. Encyclopedia of Education. Lee C. Deighton, Ed. New York: Macmillan
4. Familiar Quotations. John Bartlett. Boston: Little Brown Co.
5. World Almanac. New York: Newspaper Enterprise Association, Inc.

Indirect Sources

To Books:

1. Books in Print. New York: R. R. Bowker
2. Essay and General Literature Index. New York: H. W. Wilson
3. Short Story Index. New York: H. W. Wilson Co.

To Periodicals:

Book Review Digest. New York: H. W. Wilson Co.

Education Index. New York: H. W. Wilson Co.

Readers Guide to Periodical Literature. New York: H. W. Wilson Co.

A B C's OF INTERVIEWING

Each situation is unique so are their purposes, techniques, skills and degrees of sucess.

There is a vast difference between the effectiveness of skilled and unskilled interviewers.

The purpose is to introduce the basic skills applicable to all interviews and to specific skills needed-

Examine the nature of interviewing by:

- Defining it.
- Diagraming it.
- Discussing its uses.

A.B.C.'s of Interviewing:

Always be: concerned
consistent
committed
congenial

INTERVIEWING DEFINED

"Interviewing is a conversation directed to a definite purpose other than satisfaction in the conversation itself." (Walter Van Dyke Bingham, Bruce V. Morre, and John W. Gustad, How to Interview - New York: Harper and Row, 1959. p.3

Interviewing is a specialized pattern of verbal interaction initiated for a specific purpose, and focused on some specific content area, with a subsequent elimination of extraneous material" (Robert L. Kahn and Charles F. Cannell, The Dynamics of

Interviewing. New York: John Wiley and Sons, 1964. p. 16.

Interviewing is a "form or oral communication involving two parties, at least one of whom has a preconceived and serious purpose and, both of whom speak and listen from time to time." Robert S. Goyer, W. Charles Redding and John T. Rickey. Interviewing Principles and techniques: A Project Text. Dubuque, Iowa: William C. Brown, 1968, p.6.

Questions should contain a simple, clear request for a reasonable amount of information. Some questions are complex because they are not worded correctly, often a sign of too little preparation. Try to reduce unclear, complex questions into one question at a time. How much knowledge of the topic should the reference assistant have? Some topics are too involved for anyone but an expert to answer, others require no prior knowledge of the topic.

Communication skills to practice:

Relax and smile
Increase self-confidence by being prepared as described above
Improve eye-contact
Speak clearly
Don't talk too fast
Show interest in the interview
Don't appear resigned to having to do it
Be positive
Don't be embarrassed

The beginning of the interview usually establishes rapport - introduction, background, type of question.

The body of the interview usually begins with an opening question that serves as a transition to the information gathering function. It is now that efforts are made to establish a common ground between the enquirer and the reference staff and realistic goals are set. The opening question should be open ended. Avoid questions that can be answered yes or no. Follow-up questions should be asked to clarify the request. This is necessary when the subject area is extremely broad. Try to list all possible subject headings, topics and sub-topics in order to facilitate the search.

The reference staff efforts should be governed by the duty to search and inquire, allegiance to accuracy and willingness to persist in the search. It is unethical to falsify, fabricate or distort information. Remember, whatever you assert without proof can be denied without proof. Always provide the source for the information that you collect.

TERMINATING THE INTERVIEW

Depending upon the skill of the reference person and the scope of the enquiry, interview and search time may range from a few minutes to twenty minutes. If answering will take longer than twenty minutes, it may be better to call for experienced help--as it may result in a waste of time for both individuals concerned.

Termination of the interview should be a joint decision between the reference person and the library user. It should be concluded when both are satisfied with the answer or that an answer will be forthcoming at a stated time.

EVALUATING THE INTERVIEW

Some guidelines for improving skills in interviewing-ask yourself:

Did I listen or did I do most of the talking?
Did I let the library user tell the whole story or did I interrupt?
Did I let my own prejudices or biases affect the solution?
Did I over-generalize?
Was I friendly, courteous?

Learning to interview takes skill. It is no disgrace to excuse yourself to consult with the reference librarian for ideas, suggestions--or to offer to find the answer and call him later. Knowing when to consult is an art. Learning to interview involves using simplified search technigues.

1. Be sure of the scope of the question to be answered and the definition of any terms used.

   Dictionaries, both general and specific may be used.

2. After defining the problem the next step is to obtain background information.

   Encyclopaedias - general or specific may be used.

3. Use the card catalogue to see what material is in the library.

   Use both author/title and subject catalogue.

4. Use the call numbers obtained from the card catalogue to search the shelves.

   Any titles not in the library may be ordered through Interlibrary Loan.

5. Bibliographies may yield useful materials.

   Bibliographies are found in books, encyclopaedias and some are specialized.

6. Current information may be obtained from periodicals.

   Periodical indexes may be searched

7. Government documents provide useful information.

The systems approach may be defined as the design of learning systems which include all resources, communications, media and all available methods most effective in reaching the established goals or objectives. It is a planned approach with emphasis on learning.

Questions to answer:

1. Who is going to learn?
2. What do they know?
3. What will they learn?
4. How will they learn?
5. What should they know at the end of the course?
6. Was the method effective?
7. How can it be improved?

Choosing the source:

In choosing a reference source it is necessary to know which is the most useful for that particular question. First analyze the question:

1. What kind of information is needed to answer the question.
    a. A definition?
    b. Statistics?
    c. Overview?
    d. Summary?
2. What subject area
    a. Social Science?
    b. Education?
    c. General?
3. Factors that can affect the answer:
    a. date?
    b. Area?
    c. Type, i.e. - book reviews?
       Bibliography?
4. Decide the type of reference too.
    a. Dictionary for definition, general or subject for specialized terminology?
    b. Encyclopedia for overview or summary.
    c. Yearbookfor statistics
    d. Combination of several reference sources
    e. Periodical article for current information.

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HOW THE EXPERIENCED INTERVIEWER CONDUCTS THE INTERVIEW

1. She/He has a plan.
2. He/She has adequate job knowledge.
3. Has adequate background information about the courses.
4. Puts the interviewee at ease.
5. Listens attentively and shows evidence of being interested.
6. Clarifies any language barriers.
7. Keeps control of the interview.
8. Is aware of own prejudices and tries to avoid their influence on his judgments.
9. Avoids any suggestions of discrimination.
10. Does not show off what he knows but talks only to keep the interview on the right track.
11. Is on the alert for unexpected information that will help in the solution of the problem.
12. Asks questions that require thoughtful answers.
13. Knows when and how to close the interview.
14. Records the facts.
15. Provides for a second interview when necessary.

WHERE SHOULD WE BE GOING

Translating a Framework into Action

So we have a nice charts: goals and objectives, activities and methods of building activities. But how does it all fit together to produce an actual program?

Setting expectations is an extremely important task. In addition, participation of the paraprofession in the planning and selection of the expectations should be encouraged as it will provide valuable learning experiences which would build toward program goals and rapport between the professional librarian and the nonprofessional in the library.

Understanding the significance of one's activities

Recall of information is important and is often demanded in the library. Developing strategies that aid recall of information is, therfore, a worthwhile activity. Recall of information, however, is not the only desirable outcome of learning/training, and strategies that promote recall of information are not always the most appropriate for enhancing other learning outcomes.

In order to design appropriate training, we need to analyze the question: training for what? Similarily, in order to become really effective learners, the paraprofessional must analyze the learning situation for themselves.

Effective learning involves four main considerations:

1. The activities engaged in by the learner
2. Certain characteristics of the learner including her/his capacity and state of prior knowledge

3. the nature of the materials to be learned
4. the critical task

In order to become expert learners, the paraprofessionals must understand their own cognitive characteristics, their available learning strategies, the demands of various learning tasks and the inherent structure of the material. They must adapt their activities to the competing demands of all these forces in order to become flexible and effective learners. In other words they must learn how to learn.

Training Strategies

The ability to provide an adequate summary is a useful tool for understanding and studying material. A commonly reported method of testing one's level of comprehension and retention is to summarize the material that is being used. There are some rules that will assist in these procedures that have proven effective. The first rule is to select a topic sentence for paragraphs, chapters/areas, (if there isn't one, invent one). Other rules are: delete unnecessary material that is trivial; important but redundant material and substitute general terms for specific items such as relating to all periodicals instead of a specific in the search process. Perhaps the most important skill is the invention rule that requires the learner to supply a synopsis in their own words of the material covered.

The most desirable method of teaching the paraprofessional in the reference department is not only striving to add to their knowledge but in promoting learning to learn activities. Emphasis should be placed on improving the paraprofessional's self-control and self-awareness of their own learning processes.

A training program in which the reference manual plays an important part is necessary. The training program should familiarize the paraprofessional with the library's procedures and at the same time help to build commitment to the goals of the library. It should teach skills rather than specific titles knowing that the problems students and professors face will constantly change and resources requried to solve them will be as variable as the problems.

Where should we be going? We should develop objectives that are responsive to local needs as well as meeting individual needs. We should anticipate a pleasant experience in the training of the paraprofessional when we use a variety of methods such as discussions, simulations of situations etc. and develop efficient working patterns, channels of communication, overcoming indifference and establishing the status of the library as a motivating force in the university. The anxiety level of the papaprofessional will decrease with the consultative contact with the professional librarian thus providing her/him with ability to cope with the pressures and tensions that sometimes results in an interdisciplinary in service program.

In summary, it can probably be said that if the professional and the nonprofessional personnel in the library fail to communicate with the users, then in a large sense all the resources of the library, print, nonprint, and people, have come to very little purpose.

EVALUATION AIDS

#2

EVALUATION OF OBJECTIVES

Once instructional objectives have been prepared for a given task, the instructor should have viable information regarding the value of the objectives. One procedure for determining the value of the objectives is to select appropriate goals representing the taxonomical levels, such as the following:

Procedure:

1. Randomly assemble the set of objectives and list on a separate sheet such as:

The learner	Objectives
1. ____________________	orders ____________________
2. ____________________	defines ____________________
3. ____________________	is able to ____________________

2. The instructor is able to analyze the objectives according to the Taxonomies:

   Categorize each objective by the following:

   A. Affective - higher than lowest level

   B. Affective - lowest level

   C. Psychomotor - higher than lowest level

   D. Psychomotor - lowest level.

   E. Cognitive - higher than lowest level

   F. Cognitive - lowest level

   G. Perceptual -

#3

ONE-TO-ONE EVALUATION

1. Be sure to inform the learner that the instructional sequence is being assessed, not the learner. For the reference instruction to be effective for other learners, inadequacies must be exposed and the paraprofessional can contribute in this matter. These would include:

   confusing sentences, diagrams, directions
   continuity of meaning from one
   segment of instruction to another

2. Prepare instructional information (stimuli, case studies, simulation, activity sheets, individualized instruction such as a LAP handouts etc.)

3. Have feed back regarding the above, by observing the learner's experiences and later by questioning regarding problems that were encountered which should be recorded.

TASK	TIME	CORRECT RESPONSE	PROBLEMS

EVALUATION BY THE PARAPROFESSIONAL OF THE INSTRUCTION

1. To what extent has the instructor (the professional librarian) used specific instructional aterials that were more or less effective for the objectives that were given for the specific task.........(List in detail)

____

____

____

____

Evaluation: Outstanding--average--poor (circle one)

2. Does the instructor have an adequate knowledge of the content areas (List examples which indicate either adequate or inadequate knowledge)

____

____

____

____

Evaluation: Poor--average--outstanding (circle one)

3. Has the instructor aroused the learners interest in the instructional activities being conducted? (State specific examples)

____

____

____

Evaluation: average, poor, above average (circle one)

4. Is the instruction challenging, but not discouraging to the learner?

5. Are difficult or complex concepts treated simply and clearly?

6. Are new terms defined as they are introduced?

EVALUATING

Evaluation is a continuous process rather than a single judgement.

Evaluation helps prevent failure.

The information should be relevant and from a number of different sources.

Should be continuous feedback, initially should be constructive and often.

Evaluating should be in terms of performance in relation to the job description.

TOOLS OF EVALUATION

External

Pen and pencil responses (questionnaires, tests, checklists, etc.)

Observations - made by supervisor while paraprofessional is engaged in her work.

Can use a check list or anecdotal report.

Interviews - structured and unstructured.

Provides for personal contact ant the use of follow up questions.

Informal observations are going on all the time. Each person who has some contact ith the paraprofessional observes how she/he is carrying out her/his role. This is important to the paraprofessional--knowing how others are perceiving is her effectiveness.

The supervisor should share with the paraprofessional any indications of concern regarding the paraprofessional's work received from others.

Self-Evaluation

The most effective type of evaluation is self-evaluation. Underlying effective self-evaluation is an attitude of openness, trust in others, and a willingness to accept what others indicate needs improving. This calls for a strong self-concept. Self-evaluation has to be learned. Evaluation should help prevent failure by providing an opportunity or reviewing how others perceive the paraprofessional at work.

valuation of Objectives -- Job Description

nce instructional objectives have been prepared, it should be easy to see how well they have been accomplished.

Evaluation as Feedback.

The purpose of evaluation is to determine:

1. If the intended behavioral outcomes have been achieved.
2. If they haven't been achieved-why not?
3. Future plans.

Steps in planning for instruction

1. Select general objectives
2. Write objectives which specify the behavioral outcomes.
3. Arrange the content in a meaningful sequence.
4. Provide sufficient variety in the content.
5. Identify the instructional procedures
6. Select a variety of learning activities that will lead to the desired outcome.
7. Develop an evaluation plan that will provide meaningful feedback and will assist in self-evaluation.

EVALUATION

The paraprofessional seeks reassurance regarding her performance--whether it is meeting the expectations of the staff. Thus, it is important to keep the paraprofessional regularly informed of her/his progress. Evaluation is a continuing process not passing a final judgment. Today, evaluation assumes a vital role in every area of the reference department.

The first step in any evaluation is to identify the responsibilities listed in the job description. These must be as explicit as possible with the expected level of performance. The limits should be spelled out. It is not always possible to anticipate all the situations that can occur when working with people, especially with groups of students and professors.

The paraprofessional should be working toward a standard of performance that will accomplish the task within a reasonable set of conditions (criterion referenced standards). Since many of the task in the job descriptions are general it is necessary that the paraprofessional should receive continuous feedback so that the decisions the paraprofessional makes in regard to the assigned responsibilities can be modified or adapted to suit the many types of situations. Generally the responsibilities and expectations for the paraprofessionals fall into the following categories: professional responsiblities; professional relationships; professional attitudes, and compliance with institutional rules.

Professional responsibilities cover the range of tasks that fall within the job description. It is important that the supervisor discuss, often if not on a regular basis, how they were carried out, where they could be done more efficiently, and what appeared to be going well.

Relationships on the job are important. They include the relations between the paraprofessional, the professionals and other support staff. The paraprofessional should be sensitive to what cues are given out so she can change her attitude without becoming hurt.

Attitudes:

Attitudes affect the way the paraprofessional works with others and how the tasks are performed. Professional attitudes should include cooperativeness, willingness to extend oneself, ability to adjust to changes in plans, ability to accept criticism, conscientiousness to name only a few that are reflected in one's attitude toward the job.

Rules:

This category has to do with compliance with the rules of the library as well as the institution. There are various types of rules to be observed: rules that are basic to the orderly functioning of the department: rules necessary for the general safety of those in the building and rules that make working and sharing the resources easier.

Evaluation Tools:

Three types of evaluation tools are most frequently used to collect information about the paraprofessional performance: paper and pencil response; observations and interviews. Each has certain advantages and disadvantages. However, sometimes supplementing the external evaluation with self-evaluation can cause significant changes in the paraprofessional's performance.

Evaluation Tools	Advantages	Disadvantages
Paper and Pencil	Fast	No chance to explain
Questionnair or checklist	Easy to Tabulate	May be too subjective
Open-ended	Chance to express opinion	May not be applicable, hard to tabulate
Observation	Information is obtained directly	Time consuming
Interviews	Permits follow-up questions	Time consuming
Structured		
Unstructured	Provides personal contact	Experience in interviewing important

GOAL CHART

Responsibilities	Implementation
1. Provides reference service to patrons	a. Instructs in use of Indexes
	b. Walking tour of Library
	c. Simple reference questions
2. Maintains pamphlet and picture files.	a. Assigning existing subject headings
	b. Recommending new subject headings
	c. Suggest items to be weeded
	d. Suggestion for purchase
3. Technical Services	a. Files catalogue cards
	b.
	c.

4. Performs duplicate searching	a. Checks card catalogue b. Checks ordering file c. Recommends material needed
5. Prepares bibliographies under supervision	a. Consults card catalogue b. Periodical Index c. Other relevant sources
6. Performs other related duties as required.	

QUESTIONS ON EVALUATION

Is there enough practice provided?

(Are practice sessions based on the information to be learned?

(If simulation is used, does it permit practice of the required performance?

Do learners receive frequent and immediate knowledge of the effectiveness of their practice?

Is a record kept of the learner's progress?

Are there lengthy periods of presentation -- no chance for practice?

Content cover material specified in the objectives?

Content complete and Current?

Begins at a point familiar to the learner?

Builds many associations by relating new materials to concepts already learned?

Is the organization sequence simple to complex?

Is essential information presented first?

Is review cumulative and appropriately spaced?

Self-checking built in at certain points?

Material challenging but not discouraging?

For some libraries, evaluation is performed to justify budget increase requests, for others the ability of being able to point out achievements in quantative terms for public relations value is sufficient. Whatever the motive there seems to be a sense of importance attached to the evaluation process. Some will administer a pre-test prior to library instruction, post-test after and consider it sufficient evaluation as hard figures tend to be accepted with greater credibility than philosophical rationale. A principal concern of an evaluator is the definition of what is to be measured. How well has the delivery system accomplished the goals defined at the onset of the program. The purpose of this type of evaluation would be to identify those areas in which discrepancies exist between defined goals and attained goals. If all the goals which were defined for a program are actually attained, then the program is considered to be a success. On the other hand a goal discrepancy model would be used to identify those areas in which the defined goals were not actually realized.

Evaluating Instructional Program and Teaching Units

Evaluation implies standards. Although specific characteristiecs can't always be listed general principles can be suggested.
Evaluation of instructional programs as they are being developed/used is necessary in order to see how well the intended objectives are achieved.

Gagne and Briggs identify six. (R.M. Gagne and L. J. Briggs. Principles of Instructional Design. New York: Holt, Rinehart and Winston, 1974.)

LEARNING - TASK DESCRIPTION FORM

TASK DESCRIPTION AND OBJECTIVES	INSTRUCTIONAL ELEMENTS	METHOD		
		CHECK LIST	INDIVIDUALIZED METHOD	OTHER
Library Tours rules etc.	1. Orientation			
Classification Library of Congress Dewey Others	2. Objectives	Prof. Curr. Lab School Library Records		
	3. Pre test			
Dictionaries	4. Learning experiences			
Encyclopedias				
Atlases				
Almanacs	5. Practice Articles			
Indexes Plot summaries	Book Reviews			
Bibliographies	6. Feedback (1) (2) (3) (4)			
Biographies	7. Post-test			
General reference				
Special reference	8. Evaluation			
Search strategy	9. Other activities			
Interview				

SKILL TRAINING CHART

N = Needs improvement
S = Satisfactory

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SKILL - AREA	DATE										
Group I - Orientation Purpose of library											
Rules											
Kinds of Materials											
Services offered											
Knows Physical arrangement											
organization											
Group II - Card Catalogue Can identify {Print											
Can retrive } Non Print											
Can find proper subject heading											
Can find bibliographic citations											
Knows its limitations											
Understands filing											
Group III - Reference materials Can find source for: Etymology											
Statistics											
Book Reviews											
Figures of Speech											
Others											
Can use: Dictionaries General											
Special											
Encyclopedias General											
Special											
Atlases											
Gazetteers											
Yearbooks											
Almanacs											
Handbooks											
Biographies											
Bibliographies											
(Others - List)											
(Major reference tools)											
Group IV - Interviews Search Strategy											

SKILL TRAINING CHART - page 2

SKILL - AREA	DATE										
Group V - Recommending Materials											
New Subject Headings											
Group VI - Participation Library Tours											
Instruction in use of Indexes											

SELF-EVALUATION CHART

AREAS	RESPONSIBILITIES		EXPECTATIONS
	Defined by self	in Job Description	
Evaluation			
Tasks			
Attitudes			
Work Habits			
Others			

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Appendix

The study on the effect of repetition
on learning and retention
# of library knowledge

THE RELATIONSHIP OF AUDITORY PERCEPTION TO THE LEARNING PERFORMANCE OF UNDERGRADUATE STUDENTS

There have been many efforts to improve teaching and learning in higher education in recent years. Areas that have been researched include instructional styles,(Sheldon, Bransford and Owings 1980 and Landsman: Case, 1978) with Anderson concluding that after twenty years of investigation no conclusion has been reached regarding which is most effective. Most research has appeared to be confusing and contradictory. Instructional style refers to the teacher's method of handling curricular materials, etc. choice, level, sequence, pace and style of presentation. Because different ways of handling curricular materials have been found to have different effects on student behaviors, including achievement (Tathe) researchers have become interested in analyzing instructional style. There are a wide variety of styles: teacher centered vs. learner centered; authoritarian vs democratic; expository vs discovery; directive vs non-directive that have been examined for their potential for improving student learning.

Cognitive style refers to the information-processing habits that typify the learner's mode of perceiving, thinking, problem solving, and remembering Inhelder, 1974 Witkin has suggested that optimal learning results when the instructional style of the teacher is designed to concentrate on the particular strengths of the learners cognitive style.

Auditory perception refers to the listening ability and habits of the student. It is important to realize at what level of auditory perception the library users are operating. Thus far in the area of auditory perceptual problems a paucity of materials exists. Although, it is generally acknowledged that the ability to listen is an important area and is directly related to the ability of the student to learn effectively.

Purpose

To investigate whether or not a relationship exists among the instructional style, auditory perception and learning performance.

To investigate the possibility that library user instruction can be taught more effectively and have a longer lasting time span if attention is given to the listening skills of the learner.

Method:

Two independent variables were used in this study. The first, instructional style, was conceived as a discovery-expository. This method was developed around the sequence of instruction, the degree of instructor guidance and the type of presentation methods used. Specifically, the discovery treatment refers to a teaching method, characterized by verbalizing the generalizations being taught as the final step in the instructional sequence. The emphasis is placed on discussion, role playing, group problem solving. The expository treatment refers to a high degree of instructor guidance and an emphasis on teacher-centered presentation methods, especially lectures.

The second independent variable was auditory preception. For purpose of this study, auditory perception was defined as the level of listening, how many times a fact needs to be repeated before it is retained.

The change in subjects' learning performance constituted the dependent measure. Learning performance was defined as short-term concept attainment at the knowledge-level (Bloom) as measured by a comparison of pretest and post test scores based on excerpts from A Library Orientation Test for College Freshman prepared by Ethel M. Feagley and others.

Subjects of this experiment were the students in the general education class. (first year education students). The sample consisted of sixty-four students who participated in the experiment as a routine instruction in library use.

During the initial meeting of one group consisting of eighteen students all subjects were administered the listening test. After the completion of the pretest the experimental treatment began:

Short essays (3) were read at a moderate speed with little emphasis. The three essays were all on the same subject. The first essay read gave few details; the second added more details, while the third essay repeated all the details given in the first two with more added. (see appendix for sample). The students were instructed to tell back as much of the material as they remembered.

Selecting the proper level of material is highly important. The material should be new, challenging but not so difficult that they are discouraged.

All educational sessions were taught by three professional librarians. Each instructor participated in the decision making process in regards to the method and curricular to be taught to each group. The same librarian taught the same curricula to the three different groups in this study.

Results

A series of assessments were performed to evaluate the success of the project. For this purpose, two questions were evaluated: The ability of the students to use effectively the periodical index and the card catalogue.

It was found that the experimental group that was tested for auditory perception scored higher on the post-test and their ability to use these tools without further help from the librarian.

A major distinction being that the critical information was provided as the final step in the instructional sequences. In other words, according to the auditory perception test it is more meaningful to present the important facts in three ways and to present the important facts as the final step.

In the free recall of facts research has provided predictable verification by bringing together models of such psycholinguists as Grimes and Meyer. A carefully sequenced and rigorous plan of this type might effect better retention of the steps involved for effective use of library materials and facilities.

Most all the students in the experimental group could recall facts that had been repeated three times. Only one percent of the class could recall facts that had been given only once.

The results indicate that in general students felt that they received substantial benefits from the instruction. More than 90% of the students expressed satisfaction with the method of presentation and felt they were capabable of using the library more after this class.

In summary, the research is useful in reflecting on the method of library instruction. First, we can conclude that this type of library instruction is useful to students, in that if they pass the pretest on a certain area they can then proceed to another instructional unit thus obtaining identifiable benefits. Second, this research suggests that certain types of students benefit more than others from the traditional approach to library orientation. In these questionnaires and interviews they were asked to make suggestions for improvement of the course. From the results of these questionnaires and unstructured interviews we developed a more useful approach to library instruction. The limitation of our study is the relying on self-reports as to gains in knowledge on better use of library resources. If it had been feasible, it would have been profitable to retest this same group in six months time to see how well they were using library resources. Despite these limitations, the findings have been considerable help in the improvement of the method of instruction, both for teaching the paraprofessional and the library user.

The implication of this research suggests that presentation of important facts, in a variety of ways, involving all the senses (cognitive, affective, and motor) would result in more effective library instruction and better use of library materials and facilities.

PASSAGE RECALL

This experiment investigated the effects of subsequent related information and individual differences in cognitive flexibility (Listening) on recall of materials that had been read to them once by the instructor. Evidence from Anderson, Spiro and Anderson; Sulin and Dooling supports the notion that information is assimilated into existing knowledge structures (schemata). This is the hypothesis underlying the method used for training the paraprofessional in the reference department of the. Education library and also for instructing the Library User in the Instructional program. Piaget maintains a knowledge structure should provide a framework not only for the assimilation of related information consistent with its content, but also for the accommodation of its content to related information. Spiro argued that varying the type of subsequent information should affect the degree of error in what is remembered about the original event. For some subjects, he presented incidental subsequent information that was either consistent with or contradictory to information in a story that subjects had previously read. He predicted errors in story recall only for those who had heard contradictory information. He found, after long retention intervals (3 - 6 weeks) that these subjects may have lost the ability to distinguish true information with the contradictory information. This loss of ability may result from confusion, or it may reflect hypothesized changes in the story schema.

Crowder thinks that this schema change would indicate that this occurred during information storage time or at the time of retrieval. Confidence ratings were obtained and the subjects who had heard contradictory information were tested in three to six weeks. It was found that they were more confident in errors influenced by the contradictory information than they were confident in accurate recall. This finding, suggested to Spiro that the same reconstructive process was used to produce accurate and inaccurate recall. He concluded that errors were not produced at retrieval, through the use of conscious guessing strategy, but resulted from modification of the schema during storage. Spiro, in light of this experiment has suggested an emphasis on knowledge updating (relating new information into previous structures) rather than isolation for the purpose of test taking (as in typical memory experiments) could provide for richer, more particularized interpretations of information. The results from this experiment further suggest that knowledge structures are modified both during storage and when information from the structure is retreived. In addition, individuals probably differ according to the conditions under which they modify their schematia for events, and one way of specifying this difference is in terms of cognitive flexibility as were investigated by Hertel, Cosden, Johnson. (]980)

Thus, a fundamental question about the learning of meaningful information (library instruction when they need it) is whether related pieces (represented by the sentences) are better retained in memory than unrelated ones and whether the type of relation between them influences their retention.

Much of learning is expected to result from reading or hearing of meaningful information presented as collections of sentences. This kind of information is generally conceived to be learned and stored in memory in a form that has an organization. The nature of the relations among individual items which enter into storage affect this organization Thus a fundamental question about learning of meaningful information (given when they need it in case of library instruction) is whether related pieces are better retained in memory than unrelated ones. Does the type of relation influence their retention?

Typically in the course of meaningful learning, the learner is introduced to new materials which cannot be related to previously learned concepts. Organizers, under these conditions cannot be used to build for new learning and retention of new material. When subject matter is organized so that the knowledge of first part is important in order to understand the second part the student's understanding of the material described as the first part becomes the crucial factor in understanding the material of the second part. Typically this theory is assumed to be axiomatically true in the absence of proof.

Meaningful information to be learned, consisting of a set of sentences, is processed by a learner. Processing includes the arranging and storing of the meaning of the information as a set of related ideas which we call propositions. Several kinds of relations can exist among propositions. Two such relations are linking and ordering.

The linking of two propositions in memory is a matter of association. Tulving states that the processing of sentence-type information can be seen as taking the form of semantic processing or according to Craik occurring at two different levels.

The ideas expressed in sentences can occur in a meaningful order. This experiment was designed to investigate the effect, of the number of times the learner, the way he processes the information, stores it in his memory and then retrieves it.

We were concerned with three principal problems in the design of this study. The first was the selection of the measure of comprehension in an auditory test. Many auditory tests include such items as following a sequence of sounds or recognizing non-speech sounds competencies which should have little to do with reading comprehensions. Therefore, this study was restricted to the recall of information as a function of its thematic relevance, surely an essential prerequisite for comprehension.

Adults favor the main theme in their retention of prose passeages; ideas rated important are recalled most frequently, but information rated as less cruicial is seldom if ever featured in recall (Tulving,1968). The ability to concentrate on main events to the exclusion of non-essentials for all comprehension activities, whether in the context of listening or reading. Sticht suggests that listening and reading share the same underlying process of cognitive competency and that there should thus be a close correspondence between listening and reading skills: Good readers should be good listeners. This is important for university students in order to function in a satisfactory manner.

A common method of comprehension is that the student answer correctly a series of questions concerning text context. The choice of such questions is important.

The use of a recall measure as a measure of comprehension is applicable to both reading and listening, but it does have the problem of measuring both comprehension and memory efficiency. For this reason recall was selected as a function of rated importance as a relatively uncontaminated measure The pattern of responding, rather than the absolute amount of recall is important. A student who recalls little can still know the important aspect of the story in his reconstruction of the passage.

The second methodological concern was with the selection of the target passage. Spoken messages rely on several extra-linguistic factors to determine the total significance of the message such as voiced intonation, stress, gestures, pragmatic implication and shared contextual knowledge. (Gagne,1969). Reading aloud a written text may unfairly penalize the listener because the material may be more easily understood.

The timing (number of times the essential facts were presented) of the presentation of material was the third concern.

In summary, the main purpose of this study was to find the most effective method of presenting library information to first year education students. Repetition was used with the experimental group and straight presentation of the facts (usually presented once) to the control group.

METHOD

Subjects

The experimental population consisted of sixty-four first year education students at the University of Regina, Regina, Saskatchewan. All subjects were enrolled in the teacher education curricula at the elementary level. They were drawn from the class: Introduction to Education: its Principles and Practices. This class studies the principles of education and teaching; the cognitive, affective and methodological dimension of instruction. It is therefore important that they understand how to use the library effectively. To many this was their first visit to the Education Library. Some had used the University Library but the majority had not.

Materials

The instructional materials consisted of the following unfamiliar information (so they said) relating to the hummingbird.

FIRST LEVEL

Hummingbirds are the smallest birds in the world. Some are less than 3 inches long. They can fly as fast as 60 miles an hour and can fly backwards.

SECOND LEVEL

Hummingbirds are the smallest birds in the world. Some are less than 3 inches long. They can fly as fast as 60 miles an hour and can fly backwards. Often a hummingbird will fly 500 miles in a single spring.

THIRD LEVEL

Hummingbirds are the smallest birds in the world. Some are less than 3 inches long. They can fly as fast as 60 miles an hour, can hover in one place like a helicopter and can fly backwards. A hummingbird's legs are so thin that it seldom walks on the ground but it often flies 500 miles in a single spring.

They were instructed that this was a listening test to see at which level they functioned best in listening.

The pretest and post tests were the same. They were: Interpretation of Information on a Catalogue card and Interpretation of Information In Periodical Indexes from A Library Orientation Test for College Freshman prepared by Ethel M. Feagley and others. The matching quizs were constructed in such a manner that recognition instead of recall was tested. This has an advantage to the student in that it is a definite aid in the recalling of information, involving recognition of the essential information.

Procedure

Subjects were randomly assigned to two treatment groups. The first group received the listening test. The second group did not.

All groups were given pretest and post test selections from Library Orientation Test for College Freshmen by Ethel M. Feagley and others: on card catalogue and Periodical Indexes.

The group that had the listening test was instructed along similiar lines as facts were presented in the listening passage. i.e. They were presented with the important facts first, then repeated in three different ways i.e. orally, on the board and a printed handout, instead of being repeated three times orally as in the passage.

The second and third groups were presented with the facts once, in no particular order by the same instructor.

Results

The data collected in this study consisted of scores on the listening passage, pretest and post test of both groups on selection from Library Orientation for College Freshman by Ethel M. Feagley and others. This test appeared to be valid according to Corlett for forecasting success in college. The rationale for using this test supports the hypothesis that prospective teachers do not know how to use the library. This was concluded from the results of 2,466 student teachers taking the Feagley Library Orientation Test for Freshman. They did not score well on this test according to Perkins. In the research study reported by Perkins the 1,400 respondents (all future teachers did not score well on the Peabody Information Test. The grade equivalent would be D for answers to the card catalgoue an F for Interpretation of Periodical Indexes. The results from 2,466 students taking the Feagley Library Orientation Test for College Freshman were equally discouraging. (Perkins) 1965

Perkins concludes that no evidence was gained from this test to contradict the hypothesis that prospective teachers as a group, cannot make intelligent use of library facilities.

To test the effect of presenting an important fact three times (as outlined in the listening experiment) to the experimental group and the ordinary presentation (once for each fact) to the control group a pre test and post test based on Feagley Library Orientation Test for Freshman was used. The distribution of scores on the pretest were similiar in both groups. The pretest and post tests were the same.

After instruction as outlined above the post test was administered to both groups. The experimental group made few mistakes while the others showed a little gain in knowledge from the pretest, supporting the hypothesis that for the majority of learners material should be repeated more than once.

Suggestive evidence therefore exists for believing that by providing repetition of the essential facts, the retention of totally unfamiliar material is facilitated.

by the majority of learners. No attempt was made to compare the Grade Point average of either groups. Subjects of above average ability are eveidently capable of spontaneously organizing new learning material around relevant more inclusive concepts. and hence derive little or no benefit from the repetition of material as evidenced by several students with near perfect scores in the listening test and the post test.

General library knowledge was too distantly related to the existing knowledge of the students to provide relevant framework for adding new knowledge to existing knowledge. For the most part, the repetition, during the instruction probably increased the general familiarity of the material and hence the students self-confidence in handling this information for more effective use of the library.

This positive interaction of the repetition of the material enables the students to make better use of unfamiliar materials.

Mean number of key words and adequate representations in the Recall of the listening material.

There were three sentences in the first level; four sentences in the second level and third level.

		Sentence set		
Number of times repeated	3	3	2	1
		Key Words		
Ordered	8	7	10	2
Unordered	7	6	9	3
Items	8	7	11	15

Adequate representation

Ordered	8	6	10	2
Unordered	8	6	9	7
Items counted	8	7	11	15

The students responses were scored for the number of key words present and for the number of sentences which were judged as adequate representations of the original information. Means for each group and each set of sentences are presented in the above tables. The scores were analyzed by a two way analysis of variance (presentation sequence by sentence set). Null hypothesis was rejected that no differences exist among the means except for the scores on material repeated once.

This experiment provides evidence that sentences containing links were recalled. The key words that were repeated three times were recalled by practically all of the class. The findings of superior recall for linked sentences have been obtained under conditions in which the learning of the sentences included the requirement that the participants make written response (write what they remember from the oral reading of the passage by the instructor).

No attempt was made to emphasize words, phrases or significant details in the oral reading by the instructor.

HOW TO EVALUATE FOR LEARNERS GAIN SCORES

The major purpose in evaluation is to improve the instruction in the reference department. It is assumed that the learner is able to achieve certain competencies which was not possible prior to instruction. In many instances pretest are given to assess pre-instructional knowledge, then the learner is allowed to progress through the selected area before taking a post-test. The difference is called the gain scores. However, technically, these gain scores do not always account for performance than can always be attributed to the instruction.

Formula suggested by Lawson that can be used for determining differences in the performance between learners: (1974 p. 97)

$$\text{Percentage Gain Score} = \frac{\text{Post-test} \; - \; \text{Pre-test} \;\; \text{Performance}}{\text{Maximum Possible score} \; - \; \text{Pre-test Score}}$$

Groups are organized:

- Instructional group
- Control Group I
- Control Group II

The learners are arranged into three groups, through the use of randomization. There should be equal numbers of learners in each group.

Conclusion

This study tested recall from an oral presentation of supposedly unfamiliar material? The present study is seen as supportive of the hypotheses that repetition enhances recall and the learning of unfamiliar material. The results obtained are directlt generalizable only to the knowledge category of learning as pertaining to library instruction. There is evidence that repetition of important points, the introduction of essential information first, have a focusing effect on learning and retention of information. While both groups received similiar scores on the pretest, the experimental group greatly surpassed the other groups on the scores received on the posttest. This was presumed to be the result of the effect of repetition,which was not used on the control groups..The control groups had very few items that were matched correctly.

So therefore it is to be concluded that repetition is one of the most effective way to present library tools to student teachers in training. It is important to involve as many of the senses possible i.e. cognitive, affective and psychomotor.

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